DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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CALENDAR FOR SEPTEMBER.

"I at my window sit, and see
Autumn his russet fingers lay
On every leaf of every tree;
I call, but Summer will not stay.

She flies, the boasting goddess flies,
And, pointing where espaliers shoot,
Deserve my parting gift, she cries,
I take the leaves, but not the fruit."

Another summer has departed, with its scorching suns, and parching droughts, and the gorgeous livery which she had put on has faded into wrinkled age.

"Turn wheresoe'er we may,
By night or day,
The things which we have seen we now can see no more."

The year is on the wane. Its fulness and vigor are gone. "It has reached the summit of the hill, and is not only looking, but descending into the valley below." The grass and cereal grain harvests are gathered in, while our great Indian Corn Harvest waits for more cheering suns, and the fervid September days. In robbing us of summer beauties, Nature does not leave us without new objects to gratify both the taste and eye. "The Fruit garden is now one scene of tempting profusion. The Peaches and Nectarines have become fragrant, and the whole wall where they hang is 'musical with bees.' The rosy cheeked Apples look out from among their leaves, like laughing children peeping at each other through screens of foliage; and the young standards bend their straggling boughs to the earth with the weight of their produce." The summer birds have mostly gone, "urged thereto by a prophetic instinct, that will not be disobeyed; for if they were to consult their *feelings* merely, there is no season at which the temperature of our climate is more delightfully adapted to their pleasures and their wants." The Bob-o-link has put on his russet dress, and as he flies towards the South, higher in the air than he ever soared in the summer months, greets us with his valedictory, *weet, weet*, as he passes along. The Swallows and Martins have also gathered up their young and bid goodbye to the summer here. We miss their busy chatterings, as the absence of a prattling child. The Blue Bird lingers a little longer, and the Lark still utters his shrill note on the topmost branch of the neighboring tree. The Flower Garden is almost as gay as it was in June, so that Nature compensates us for the losses of Summer.

Such are some of the aspects of Nature about the Farm in the first autumnal month; it is profitable to note them and find instruction in their varied beauties, and in the wisdom and beneficence of Him who hath created them all. There are a thousand others, too interesting to be passed with idle gaze, and thoughtless heart; but we had rather talk of them with you under the green tree, or in the social evenings by the first autumnal fires.

Meadow Mud.—Though urged so often, we must suggest again to the farmer the importance of getting up a large quantity of this valuable absorbent and fertilizer. Haul it upon the uplands ready for the corn land next spring, by placing a large shovel-full in each hill, mingled with a handful of guano. In this process you carry back the vegetable, together with some of the mineral, matter, which has been washed from the hills through a period of hundreds of years. Have it in abundance, also, to cover the droppings of the stalls.

Fruits.—Gather up all the windfalls and feed them to cattle or swine; if cooked and mixed with meal, your porkers will pay you compound interest on the cost and trouble, and you will destroy a host of insects which would scourge your orchards another year. If any of your trees that were budded last month have failed, stick in another bud now. They will be likely to take, up to the middle of the month.

Strawberries.—Clean out and manure the old beds, and make new plantations, if it was not done last month.

Nurseries.—Keep the nurseries clean by fre-

quent hoeing, and if drought prevails, as is not unfrequent in September, water, mulch, &c.

LAYING DOWN LANDS TO GRASS.—See Calendar for September, 1852; but it will be well to remember that the best time for this work comes only once in twelve months, August and September.

HOPS.—The cultivator of this crop must attend to it now.

TURNIPS.—Your turnips being up and looking well, see that they are properly thinned and weeded. Nearly half the turnip crops are wasted by the plants being left too thick.

TOPPING CORN.—While we have no doubt that the corn is injured by this practice, we do not hesitate to recommend it. We lose something in the weight of kernel, but gain in the fodder; and materially in managing the future harvest; it is worth while, perhaps, to go a little more particularly into the matter.

The leaves of plants perform two important functions. Evaporation, which principally is effected by the lower surface, and by which the water which has been absorbed by the roots and absorbent vessels is carried off in part, leaving the residue in the form of concentrated juices:—and, second, respiraration, by which carbonic acid is taken into the circulation of the plant and performs an important part in the conversion of the proper juices, and in preparing and maturing those elements which constitute the nutritious quality of the fruit. This process must of course cease when the parts which perform the office are destroyed. It would seem that such must be the effect produced by topping corn; and though the proper process may still go on by means of the few leaves that are left below the topping, yet it will be feeble and partial, the corn will ripen by evaporation merely; or rather, both the evaporation and the respiration will be diminished, to the consequent injury of the grain, which will have less of the nutritious property, and less weight, will be more liable to ferment, and to lose more in weight by the end of winter. By the process named, the proper secretions of the plant are in ripening, rapidly converted into sugar; and so far as the topping checks the respiration it would also diminish the saccharine quality and render the corn less agreeable to the taste, as well as less nutritious. But after having tried both ways, we incline to the opinion that the loss is less to top it, than to suffer the top to stand, and dry up and realize the inconvenience in harvesting.

SWINE.—Begin to feed the swine intended for fattening more liberally. Gather the early pumpkins, apples, and with the small potatoes, boil and mix with meal for them. To give them now as much as they will eat with a good appetite, *is the cheapest way to keep them.*

For the New England Farmer.

THE WANTS OF AGRICULTURE.

MR. EDITOR:—In the August number of the *Farmer* may be found an article from a Brattleboro' correspondent, which I sincerely hope will not escape the notice and careful consideration too, of any of your agricultural readers. It is a brief description of a charter obtained for establishing an Agricultural College in the State of New York, with some comments and suggestions by the writer upon the propriety of a similar movement in our own State. The article referred to contains so many good, suitable hints, that I feel disposed to comment somewhat upon their merits; hints that may be made applicable to the people at large, and also to the various associated agencies throughout the State, whose object it is to promote great interest of agriculture, and more particularly our "State Board."

The establishment of an institution of some sort, for the full development of a more complete, scientific, and, at the same time, practical system of agriculture, is what in my opinion we ought to aim at; and for one, I am glad to have our neglect of this, our "masterly inactivity," so presented to our view. I do not, however, wish to be understood as believing that there is not existing in the public mind a feeling favorable to the proposition; not so; on the contrary, I believe that a constantly increasing interest is being felt and manifested; but still, that it is so undefined and unshaped, as to justify the conclusion that it exists but to a very limited extent.

A sound, practical knowledge of the science of agriculture, is what of all things we most stand in need of; we want it, for the full and complete development of all the resources that a wise, creating hand has so profusely placed at our disposal, and upon which the great mass of the people are as yet uninformed.

What is there that will so much elevate or ensure that just estimate of the true dignity of our occupation, an occupation which, most of all others, constitutes the true greatness of a State? What, but the possession of this very knowledge and skill in conducting it? Let the *fact* but be *established*, that to make a good farmer, a deep thinking, well educated mind is as necessary as the strong, sinewy arm, and you place the profession in its just and rightful position.

My attention has been given to this occupation of farming to a very considerable extent for the last twenty years, and I profess to understand pretty well all its details; that is, the general or common management of a farm; but as to a knowledge of the great *principles* appertaining thereto, I confess I am obliged to admit almost an entire ignorance; such, for instance, as to the variety of treatment required for the various kinds of soils—the proper mode of preparation and application of manures—the adaptedness of particular crops to particular localities, and the proper succession of crops; it is the want of a true knowledge of these, and such as these, and the great principles connected with them, that I so much regret—principles and laws established and fixed by a beneficient Creator, and that must continue as unbending and fixed in all the future, as they have been in all the past; we must go to *them*, they won't come to us—go by the light of science, with a well educated mind, prepared fully to compass the mys-

teries of our profession—nothing short of this will satisfy, nothing short of this will ensure success.

The question now arises, what State other than our own Massachusetts—with all its intelligence, wealth, and public spirit, should be foremost in this important movement! And what associated body, other than our own "State Board" of agriculture, is there, so able to shape up and present to the people some plan for establishing an institution for the promotion of a more enlightened system!

And now in closing I will say, that I have been somewhat disappointed in the action of the Board in this behalf. I do not intend to find fault, for I know very well what obstacles there are to contend with, and that it requires deliberation and wisdom to manage judiciously so important a matter; but still, I feel that it is time something of this nature was submitted in some form, and that the people should be advised in relation thereto. As at present advised, I do not see much to encourage the hope that any thing of consequence is to be presented; surely there is a wide field open, and the laborers are many; all that in my opinion is required, is, some efficient and decided action by the State Board, to ensure complete success.

I have extended this train of thought perhaps farther than I ought, and I will stop, hoping to hear from some of your many able correspondents upon this important subject.

Yours truly, J. H. R.

Dorchester, Aug. 8th, 1853.

CHANGES OF TIMBER FROM CLEARING LANDS.

There are few things connected with the natural history of trees or plants more suprising, or that have occasioned more speculation, than the changes that not unfrequently take place in the growth of timber after clearing, from what it was before that operation. So inexplicable is this change, in many instances, on the commonly received principles of vegetation, that it has been adduced by the believers in the doctrine of spotaneous production, as one of the strongest supporters of their system. We think, however, that, singular as the phenomena may be, its solution cannot require a supposition so unphilosophical.

In the Southern States, where the timber is principally pine, when that is cleared off, a growth entirely different, and composed of such as was unknown to the place before it springs up; and this, when cut off, is often succeeded by new varieties, or perhaps by a return of pine. Lands covered with oak and chestnut, or such timber as shoots up from cut trees, do not change the timber except in a small degree, it is on those lands covered with timber that requires to be propagated by seeds that this change is most apparent. Everybody must have noticed in what numbers a species of wild cherry will spring up where the forests are cut down, or are propagated by winds, though that particular kind is rarely or never found growing in the unbroken forest.

More than thirty years since, a part of our farm was cleared of its timber, a dense growth of maple, bass wood and elm. A small piece of perhaps half an acre was separated from the rest by a narrow ravine; after being cultivated three or four years, and part of it planted out as a nursery of fruit trees, it was left to itself. It was soon covered with young trees, which were suffered to grow unmolested, and there are now on this small spot, white oak, black oak, butternut, white poplar, common willow, walnut, hickory, and black cherry, of all varieties of which not one was growing near at the time it was cleared, and most of them not within three-fourths of a mile. An explanation we leave to others.—*Warren Journal.*

For the New England Farmer.

MOWING MACHINES.

Many of the farmers of New England have not yet had an opportunity to see a mowing or reaping machine in operation, and doubtless, some have the impression that they will never be much used, upon our hill and valley farms in New Hampshire and Massachusetts. Until I witnessed their operation, I had myself the idea that their appropriate field would be the western prairie, or the broad wheat fields of a more level country than New England.

On the 26th of July last, I attended the trial of two *Mowers*, at Greenbush, near Albany, in a fine field of herdsgrass. One of them was a machine of Ketchem's, a description and drawing of which is contained in the monthly *Farmer* of August, 1852; the other, an improved Mower and Reaper, made by Emery, of Albany.

I will not undertake to decide upon the comparative merits of the machines, but rather give some general idea of their operation, for the benefit of those who have not seen them. There was no perceptible difference in the quantity or quality of the work done by each. I have since seen in the Crystal Palace, at New York, Reapers and Mowers of various kinds. They all cut upon the same principle; by large teeth like a saw, moved back and forth, by gearing attached to a heavy iron wheel which rolls upon the ground, serving as the great wheel of the machine, and carriage wheel for the machine and driver. The Mower is drawn by two horses abreast, driven by a man who rides and drives and works the machine. The work is hard for two good horses, but not hard for the driver. It cuts a swath about four and a half feet in width, as fast as the horses can walk, and the mowing I saw done was performed closer and better than any man could do it, with a scythe. After the hay was raked off, no mark of the swath could be seen.

In cutting the first swath, the horses walk in the grass; afterwards they travel over the last swath. The grass is spread very evenly, as it is cut, so that the boys who used to spread, will be out of business, when horses do the mowing.

One of the machines was owned by some young men in the neighborhood, and had been used, to cut about ninety acres, the present season. One of the owners said he could cut a ton in one hour easily, and that the machine required no great care, and very little repairs. The cutting part requires grinding about once a day, upon a common grindstone, which must have a very long crank. The owners, and a very large number of gentlemen who were present, seemed perfectly satisfied that mankind would soon shift the labor of mowing off upon the brute creation.

Mowing machines will no doubt be used in most

if not all, of the New England States, the very next year. We have some farms in Rockingham county, which yield two hundred tons of hay each, and many which yield fifty. The Mower will work on any land where a horse-rake can be used. We shall soon see haying done about in this manner. A man and span of horses will drive into the field, at sunrise, and resting an hour at breakfast, will cut and *spread* about six acres before noon. Another man may be occupied in the forenoon, in cutting out with a common scythe a few corners, and spots near trees, where the Mower cannot well go, and in raking out with a hand-rake a breadth from the fences, to get ready for the horse-rake. After dinner, one of the men will mount a Delano's Horse-rake, and in three hours he can easily rake the six acres into windrows, while his comrade, with a couple of extra hands for the afternoon, can put the whole in cock.—There should be on the six acres at least ten tons of hay, making about three hundred cocks, and two hundred of these should be covered with *hay caps* of cotton cloth, and so made secure against change of weather for a week. The next fair day, our two men may get in the hundred cocks easily, and they may open the other an hour to the sun, and get it into the barn as fast as they find it convenient.

I think by keeping up with the times, and availing ourselves of the *thoughts of men*, as made manifest in their inventions, we may see *two* men perform easily the former labor of six, and that most of the hurry, and disappointment, and over exertion of haying, may be done away with.

And so, through all farm labor, as in other fields, the mind asserts its supremacy over the body. The hands are feeble, and alone, are no match for the rugged obstacles which Nature opposes to our wishes; but aided by an active intellect, they will finally gain for us that dominion over the earth which is our rightful heritage.

HENRY F. FRENCH.

Exeter, N. H., Aug. 18, 1853.

POTATOES.

The potato should not be harvested till it is perfectly ripe. If the tubers are moist, with much soil adhering to them, it is better to convey them at once to the bins, as they are, than to free them from the soil, as it is utterly impossible to do this with economy without drying them, and equally as impossible, to dry them sufficiently for this without essentially deteriorating their eating qualities. In some sections it is a common practice with the cultivators of this root, to place the crop in barrels or boxes, as soon as dug, and secure them from the contact of the atmosphere by a stratum of sand. This retains them in a moist condition, and effectually secures the preservation of all their excellencies. Since the prevalence of the potato disease, instances have come to our knowledge, where potatoes that were dug and immediately deposited in the cellar, remained sound, while those placed in barrels and standing a day or two out of the cellar, and intended for the early market, have badly decayed.

LEACHED ASHES AS A TOP-DRESSING.

DEAR SIR:—I noticed a communication calling for an experiment of applying leached ashes as a top-dressing upon meadows.

I will mention a striking instance. It was in my door yard lot, in about half of which the grass always grew very luxuriant, while the other half would hardly support weeds. I applied leached ashes to a portion of the poor part, and rich mellow earth to the other, and now to my satisfaction I see the result where the leached ashes were placed. The grass is equal in growth to any in the yard, and where the earth was put it has helped it, but not one fourth as much. I came to the sage conclusion, some time ago, not to sell a bushel of ashes off my farm. It pays 25 per cent. to apply ashes as a top-dressing upon meadows, gardens, wheat, or anything else, so far as I have tried it. Yours truly, EXPERIMENTER.

☞ We take the above from the *Ohio Farmer;* the editor of which paper says, in addition to the communication, that "for peach and apple trees, there is nothing superior to leached ashes."

For the New England Farmer.

AN HOUR WITH A BUDDER.

Seeing over my garden fence that neighbor Goodman had got George Handy, a first-rate budder, at work in his little nursery, I first hung up my hoe, and walked round through the gate to see a little into the operation. Like many other things, it is "very simple after you understand it." I had read about the matter in divers books, but Handy told me what I never knew before, and I saw the thing done too.

The trees were of different sizes,—from a quarter of an inch to an inch in diameter, and were all just trimmed up roughly, about two feet from the ground. George was budding. He sat on a small box the south side of the row, and had a dish of buds, all cut ready to be inserted, in water before him. I was surprised to see how short is the process in skilful hands. George would hitch along his seat with one hand—set the dish forward with the other—seize a tree and bend it down under his right arm, and then make the cuts and the opening, and slip in the buds as quick as my eye could follow him. I noticed that he selected a smooth place in the young tree near to the ground, so that the future tree should have a uniform appearance throughout, and not present an ugly jog. First he made a cut up the tree about three quarters, of an inch long; then another short one across the top of the first,—then with the ivory in the other end of his knife, he loosened and opened the corners of the bark at the top. He now took up a bud from the dish before him, and holding it by the foot-stalk—as he called the stem without the leaf—he again applied the ivory, raising the bark a little, and at the moment entered the bud. The top of the bud seemed too weak to admit of being forced down with the fingers the whole distance. This was quickly done with the end of the knife-blade, inserted just below the foot-stalk.

The top of the bud now stuck out at the top its whole thickness. A cross-cut with the knife exactly over the second cut made in opening the bark at first, squared off the wood of the bud-slip, so

that it settled at once down into its place, close to the slimy hard wood, to which it would soon adhere and grow.

George showed me how he cut the buds. He first selected scions of this year's growth, not rank sprouts with soft, half-formed wood; nor on the other hand, little peeling twigs, but good thrifty hard scions, from which buds of some body and firmness could be readily cut. As he takes these from the tree he cuts off the leaves, as they would rapidly rob the scion of its fulness in hot, dry weather. He showed me how he cut the buds. His knife had a thin, sharp blade. He held the stick of buds with the top towards him, and inserting his knife carefully about half an inch or a little more below the footstalk, he brought it out as much above. The bud dropped off into the dish of water, and the knife soon sent another and another after it.

I had heard of budders cutting their germs as they went along. I told George so. He replied that "he should'nt think they would *go along* very fast then."

I took out my timepiece to see how long the young man was in setting a bud. He seized the tree—bent it down towards him—made the two cuts—opened the bark—slipped in the bud, and off with the top, *in just twelve seconds!* He set four in good shape, in fifty seconds! Goodman said he never saw the beat of that. I told my neighbor that the job wouldn't last a great while at that rate. The budder said he didn't care how soon it was done, for it was a little worse for the back than the spring-tooth horse rake.

To be sure the budder's position is unfavorable to a comfortable spine, and ought he to follow such work many hours without change!

By this time quite a number of buds were set, and I saw the *tying* done. George had brought a new furniture mat, which, cut in squares, furnished the strings. These were well wet and tucked through his left suspender. George had to down upon his knees and bend over pretty low to get a good chance at the work. He placed the middle of the string a trifle below the upright cut in the bark, and carried the ends around and around, keeping them firmly drawn until the whole wound was faithfully covered, leaving only a grain of space above the footstalk for the bud, which would have "more air" when the footstalk drops away.

"Very good," said I, "and what is the next process with such a subject!"

"The next thing," said George, "is to cut off the string next Spring after the bud has started. If it looks lively, and seems disposed to grow, I cut off the whole tree down to within a few inches of where the bud was inserted."

I had some further talk about the future management of the trees, which will require another chapter. Yours, W. D. B.

Concord, Mass., Aug. 16th, 1853.

For the New England Farmer.

TO DESTROY VERMIN IN FOWLS.

With a feather, dipped in spirits of turpentine, touch those parts of the fowl most infested, as top of the head and under the wings, and they will soon disappear. If there are *nits*, the application will need to be repeated. It can easily be done by going among them after they have roosted, and a small quantity only is necessary.

A QUEER OLD BOOK.

We have had placed in our hands, by a lady in Vermont, a collection of old books, one of them dated London, 1631; and others printed in Cambridge, this State, matching them in size, type, and the old queer mode of expression. The titles are as funny as some of the sentiments. One is "New England's True Interest Not To Lie." This was a sermon preached in Boston, by Mr. *W. Stoughton*, preacher of the gospel in Dorchester, 1670.

Another is "God's Terrible Voice in the City of Lopdon; Wherein you have the Narration of the Two late Dreadful Judgements of Plague and Fire Inflicted by the LORD upon that CITY; the former in the Year 1665, the latter in the Year 1666. Cambridge, Printed by Samuel Green, 1667. Another is "Tydings from Rome; or England's Alarm."

The two last books are exact reprints, we think, from "Markham's Farewell to Husbandry," and are upon Orcharding and the Country Housewife's Garden.

For the New England Farmer.

MIGRATION OF SWALLOWS.

Mr. Brown: — Having noticed an inquiry in your paper, a few weeks since, calling for information in regard to the time that swallows leave the north, your correspondent from Derby, Ct., says some things he knows, and some he thinks; now he probably has seen barn swallows as late as the 28th of August, but as to his seeing chimney swallows as late as the last of September or the middle of October, I think he must be mistaken, (unless it was some heedless straggler,) as they invariably leave here as soon as the first of Aug., if not before. They do not appear to be as hardy, and are not as plenty, as other swallows, for some cold seasons they do not visit us at all. Some twenty years or more ago, I lived with an old gentleman in a town adjoining this, and he told me a man offered to give him five dollars if he would show him a swallow (meaning a barn swallow,) after the 25th of July. Since then I have observed them with some interest. About the 20th of July they begin to congregate together on the barns and fences, and from then to the first of August their numbers decrease to less than one-fourth, and after that time but few are seen.

The 2d day of August, 1852, in company with a few others, I paid a visit to the Grand Monadnock, distant from this place about fifteen miles, and while standing on the pinnacle, I noticed the swallows, a few of which were performing their usual gyrations through the air around me, apparently as much at home as in any farm yard. This year I have seen them every day, thus far, though but few are left.

The Labrador swallows have all gone from here; they had about fifty nests in sheds near us. It is a great place for birds of most all kinds here, in the summer season. I. D. Ward.

North Ashburnham, Aug. 9, 1853.

Remarks.—The above corresponds with our own

observations. The martins left their boxes in our garden Sunday evening, Aug. 7. This year, the barn swallows remained later than usual. A few remain still, but they are undoubtedly late broods; the largest portion of them left the 4th and 5th of of August. For several years past they have left on the 27th, 28th and 29th of July.

THE SANDWICH ISLANDS.

We are indebted to our correspondent, Mr. GREEN, at Honolulu, for several copies of THE POLYNESIAN, one of which contains the report of THE ROYAL HAWAIIAN AGRICULTURAL SOCIETY, at Honolulu. The society appears to be in a flourishing condition, and we notice with pleasure that some of our own people are interested in the prosperity of those remote regions, and are active in aiding the efforts of the agriculturist there.

They find the raising of coffee a profitable business, and one, "evidently destined to advance; and the Kona coffee of Hawaii, it is admitted by the best judges, is not surpassed by any in the world."

The farmers of East Maui have gone to work with the determination to raise sufficient wheat to supply their home consumption. The experiment of raising wheat has been a doubtful one; but the efforts of Mr. GREEN, and a few other earnest men, have given general confidence of future success. They are about erecting a good Flour Mill on the Wailuka river.

The Indian Corn crop has increased, and what has been produced has sold from three to five cents a pound. The corn crop, however, is a very uncertain one, the success or failure of which depends in a great degree on the seasons and time of planting. The study of the weather is almost as important to the farmer of these Island, as to the mariner. On Oahu the season for planting is from November to March, while on Kauai, only 70 miles distant, where corn has been planted almost for the first time this year, it is found that that planted in the winter months has come to nothing. On the contrary, that planted by Lieut. Reynolds in September last, gave a fair yield.

The climate is admirably adapted to the sweet potato, to which increased attention is given. The report states that it grows well in almost every part of the Islands, and no where better than among the dry, hot stones of Puna, Kauai and Kona, on Hawaii. No one who has ever travelled over those districts can fail to have been struck with astonishment at the sight of beautiful sweet potatoes, growing in hills of broken lava, with not a particle of earth to be seen in their vicinity. The sweet potato is the great article of food in the dry burnt districts of Hawaii, and the cost of raising them is next to nothing. The yield is from 125 to 175 bushels to the acre.

Apples, pears, plums, cherries, &c., they have not yet been able to raise, but produce figs, grapes, bananas, oranges, and most other tropical fruits in abundance. The potato disease has not made its appearance among them.

The raising of cattle, when connected with the dairy business, is found profitable. They require no feeding, no salting, no sheltering. On the island of Oahu they are worth about $5 per head, all ages counted, and on the other islands only about half as much, owing to the difficulty of transportation to a market. They are improving the breed by importation of stock from the states and other countries, particularly Australia.

Sheep are abundant, and have been kept heretofore for their flesh, without the least regard to the value of their wool.

The best breeds of swine have been imported by the society. This report states that the pigs imported were "a present from HENRY A. PIERCE, Esq., of Boston, and that the freight etc., were given by Messrs. PIERCE & BREWER, two gentlemen who seem ever ready to advance the agricultural interests of the islands." We take sincere pleasure in noticing these noble acts in our own citizens. Mr. PIERCE has also presented the Society with hives of bees, one of which was packed in ice. Horses and poultry of the finest breeds have been imported, so that our friends out there bid fair not only to produce the most abundant crops of bread stuffs, vegetables, beef, poultry and pork, for their own use, but for their neighbors, the Californians. We cannot but feel a lively interest in their efforts, and wish them complete success.

For the New England Farmer.

THE TOMATO.

To many persons there is something unpleasant, not to say disgusting in the flavor of this most excellent fruit. It has, however, been used for culinary purposes in various countries in Europe, and has of late years been extensively cultivated in this country. It is one of the most powerful deobstruents of the *Materia Medica;* and in all those affections of the liver and other organs where calomel is indicated, it is probably the most effective and least harmful agent known in the profession. A chemical extract may be obtained from it, that will altogether supersede the use of calomel in the cure of diseases. When used as an article of diet, it is almost a sovereign remedy for dyspepsia and indigestion. It is, also, a most powerful alterative. Eaten as fruit or as common food, it is a most excellent article; and as a sauce, pickle or preserve, equal if not superior to any, and may be prepared and eaten in as many different forms. I have often used it in complaints of the liver and other organs with the happiest success.

The method commonly adopted of preparing the fruit, is to cut them in slices, and put them in salt and vinegar like cucumbers.

To stew them, take them ripe from the vines, slice them, put them in a pot over a stove or fire, without water; they will cook in their own juice;

stew them slow, and when done, put in a piece of good butter, and eat them like apple sauce.

To preserve them in imitation of figs, to which they probably are equal, cut them in slices, lay them in a *stone* pot with alternate layers of good brown sugar. Supposing the method of raising them to be generally understood, it is probably not necessary to describe it here. J. B. B.

Vt. Insane Asylum.

ERUPTION OF MANUA LOA, FEB. 20, 1852.

In the Sandwich Island *Polynesian*, we find the following description of an eruption, which formed the subject of a poem which is too long for our columns:—

The eruption, of which the following poem is a truthful and vivid delineation, is still fresh in the recollection of the residents of the islands. Never, perhaps, in the history of the volcanic phenomena of Hawaii, has such a startling eruption occurred, as the one so graphically described in this wild lyric. The scene was unique, grand, sublime, awful, terrific! No language—no pencil can paint it in adequate colors. To be realized, it must have been *seen* and *felt*; and for this, the author of the poem had the most ample opportunity, having not only watched its raging actions for twenty days, but having also ascended the thundering mountain, and stood one whole night in close proximity to its consuming fires.

The eruption commenced just before day-break. Hunters on the hills in that vicinity say that they heard subterranean rumblings, and felt a quivering of the mountain during the night preceding the eruption, as described in the poem.

When the mountain rent, a column of molten rocks, fused to a white heat, and some 2,000 feet in circumference, shot up from 500 to 1,000 feet heavenward, and this fiery column continued its ever-varying and fantastic play for twenty days!

The noises and detonations were as varied and startling as can be well conceived. At times, the roar was heard at a distance of 40 or 50 miles. The atmosphere was filled with smoke and *Pele's* hair, ashes and cinders were scattered wildly over the mountain and over the sea. Day after day the sun shed a yellow and baleful light through the dark clouds of smoke which careered along the heavens. Along the rim of the exploding vortex, a hollow pryamid, one mile in circumference, and five hundred feet high, was soon raised by the incessant falling of the matter expelled from the burning orifice. As the descending showers of fusion fell upon this pyramid, it presented an ever-changing scene, more glowing than the most vivid imagination can paint, and more dazzling than showers of countless brilliants.

From this awful fountain, a burning river rolled down the slope of the mountain towards Hilo, with a breadth varying from half a mile to three miles, and a supposed length—including its windings,—of from 39 to 40 miles, entering, and cutting its way nearly through a dense forest in the rear of Hilo. But the fountain ceased to flow before the molten river reached the sea, yet for months after, smoke issued from the orifice, and the congealed river now remains as a witness to the mighty throes of the vast mountain, under the volcanic influence.

For the New England Farmer.

IMPORTANT QUERY.

Mr. Editor:—As you gentlemen of the quill, are supposed to know everything, I wish you would tell me what is the best way to do with five acres of potatoes, so diseased, as to smell offensively, and to be not worth digging! Ten days ago, the field bid fair to yield 800 bushels—now they are not worth picking up. How will it do to plow the land and turn them in, covered with the furrow slice! Will they be of any value as a fertilizer? Or are they too much poisoned for that! I want them out of sight and smell—and I fear that many of my neighbors are in the same boat. Can you tell me what is best to be done!

Marblehead, August 16, 1853. Essex.

N. B.—Our cabbages look first rate. Our onions are blighting some, so that there will not be more than two-thirds as many as we expected. Corn never appeared more promising. There will be plenty of second crop.

Remarks.—Deficient, sadly deficient, my dear sir, in the information you desire. A field of our own, three years ago, in the condition you describe, was abandoned, but on trying some of the hills in October, fair and sound potatoes were found, and some thirty bushels dug. How came they there! The rotten potatoes can be of but little value as a fertilizer.

For the New England Farmer.

HOW TO CURE WARTS.

Mr. Editor:—Reading in the *Farmer* a communication of inquiry for the cure of Warts on the teats of cows, I relate the following for what it is worth:

Some two years ago I was very much troubled with an abundance of warts on my hands, and to rid myself of them, tried, as I thought, all the remedies,—such as lunar caustic, turpentine, saleratus water, and the juice of milk weed, &c., without a cure.

Now every farmer knows that the shell of our walnuts or butternuts (for I used both) contains a juice which acts in the character of caustic; we call it stain.

I observed that fact, and took the benefit of it to kill my warts, which I most certainly did. It was an experiment that proved well with me and I have no other desire in this communication, than that others should try the experiment so simple and easily obtained. If any one should see fit to try it, I hope he will tell the results for the information of all. Yours, &c., A Subscriber.

Southbridge, July 31, 1853.

Prospects of the Season.—The prospects of the season continue favorable, with the exception of the potatoe crop. The rot is certainly among them, and many are already lost. Copious rains fell during the fourteenth and fifteenth days of August, washing out the air and giving us a clear and delightful atmosphere after the sultry, hot days which preceded them. The lightning was intensely vivid, and the clouds were charged in an

unusual degree. Corn continues to look finely. Apples will be scarce, but on visiting various parts of this State and New Hampshire, we find more than we had expected.

WAIT AWHILE.

Cast a seed into the earth—
Wait awhile;
Cheer the little flow'ret's birth
With a smile;
Shelter it from wind and storm
Sweeping by;
No rude hand let it deform,
Lest it die.
In the summer it shall bloom,
Fragrant with a rich perfume,
All your care repaying.

Store with truth an infant's mind,
Wait awhile;
Greet the first fruits that you find
With a smile;
Bid it, with truth's flag unfurl'd,
Move apace;
In its battles with the world
Teach it grace;
Then, when youthful years have flown,
See the child to manhood grown,
God's whole law obeying.

EXHIBITION OF THE VERMONT STATE AGRICULTURAL SOCIETY.

The annual exhibition of the Vermont State Agricultural Society will be held at Montpelier, on Tuesday, Wednesday and Thursday, the 13th, 14th and 15th of September, 1853.

An area of forty acres will be enclosed for the exhibition; and within the enclosure suitable structures will be erected, and arrangements made for the accommodation of all who wish to exhibit either animals or articles. Fresh water, forage consisting of hay, grass, green oats, and cornstalks for cattle, horses, and sheep, straw for littering and oats for feeding horses, and grain for swine and poultry, will be supplied, free of charge, to such exhibitors as choose to keep their animals on the grounds enclosed; and exhibitors of valuable horses, desiring barn accommodations for the same, may procure them in the village at a reasonable expense.

Exhibitors must become members of the Society; and must have whatever they intend to exhibit entered on the Secretary's books on or before Tuesday, the 13th of September. It is quite desirable, however, that the entries should be made as early as Monday, the 12th.

Persons residing out of the State, may compete for premiums on foreign stock, plowing, agricultural implements, and machines, the various manufactures named in the Premium List of the Society, under the head of Discretionary Premiums; and may make entry of Animals or articles of any class, for exhibition merely, which will be admitted within the enclosure for that purpose, if deemed worthy by the Executive Board.

Arrangements have been effected with all the Railroad Companies in Vermont, to carry all animals and articles for exhibition, to and from the Fair, free of charge, and without changing cars; and visitors each way, at half-fare.

Gentlemen from the States, and from the Canadas, are cordially invited to participate in the exhibition.

Communications may be addressed to J. A. Beckwith, Corresponding Secretary of the Vt. State Agricultural Society, Middlebury, Vt., or to his agent, E. P. Walton, Montpelier, Vt.

FREDERICK HOLBROOK, *Pres.*
J. A. BECKWITH, *Sec.*

For the New England Farmer.

THE GARGET.

Relative to an "Inquiry touching the Garget" in cows, I have to say, that in *every* case that has come under my notice, I have prescribed the root of what is commonly called "Crow Berry," and have never known it fail of curing the malady.

Mode of application: cut a piece of the root, about the size of a gill cup, in small pieces, and mix with Indian meal; give twice in twenty-four hours. Cows will eat it in this way as readily as they will eat potatoes.

CROPS IN HAMPSHIRE COUNTY.—Grass, first crop was good; aftermath will be superior; late pasturage abundant; rye and oats good. Corn looks extremely well, and is forward for the season; potatoes will probably average a fair crop, although some pieces show a tendency to rot. Broom Corn, a prominent crop in the valley of the Connecticut River for twenty miles above Mount Tom, is but fair. Apples are a failure. Peaches and pears abundant. L. E.

Northampton, Aug. 22, 1853.

For the New England Farmer.

TO MAKE GOOD WALKS.

Two years ago, I tried an experiment for a walk in front of my house, which has proved very satisfactory. I removed the soil one foot in depth, and filled in small cobble stones. Then took coarse gravel, and with two riddle sieves sifted the coarse and fine from it, retaining the medium size. Then took equal parts of lime and cement, and mixed in as much as I could with the gravel. With a shovel and trowel I placed it down smooth, like plastering, one and a half inches in depth. In the spring, when it began to thaw daytimes and freeze nights, it flaked and crumbled about half an inch in depth, but has remained smooth and firm ever since. It is now very solid, and one of the most beautiful walks I know of. F. E. B.

Concord, 1853.

For the New England Farmer.

THE ONION WORM.

MR. BROWN:—Noticing the remarks on the onion worm in your July number, I had the impression that if living creatures of the insect tribe could live and exist on the onion, that tobacco could have no effect, but tried it effectually. When the onion had got to the size of a pipe stem, I found many of them laying prostrate on the bed, and a maggot in them one fourth of an inch in length. I obtained two quarts of tobacco liquor, and took out every defective onion and poured into the drill the liquor; then with the hose or the water pot sprinkled the whole bed, and now there is not a more thrifty bed of onions in "these diggins." H S.

Sagamore Farm, Rye, N. H., Aug. 8, 1853.

A WHEEL HOE.

This implement, a figure of which we give above, is one which has for many years been in use among the thrifty farmers in Essex county, and particularly by those in the practice of raising large crops of onions. Nothing, probably, will ever supersede the use of the *hand hoe;* it is to the farmer, what the right hand is to the mechanic; although it may not do the work as fast as some other implement, no other can do it any better. It suits all places and conditions of soil, and must always remain an indispensable tool on the farm.—But the *wheel hoe* is more than "cousin german" to it; in good hands, it will perform five times as much service in a given period, and where everything is favorable, do it as well as the hand hoe. The figure is so plain that particular reference to its parts is unnecessary. The knife may be raised or lowered at will by turning the nuts on the screws,—and when worn down on one side reversed, and then is as good as ever. Our attention was called to the wheel hoe in one of the onion fields of Danvers, by Mr. PROCTOR, of that town, a gentleman (though educated at the feet of Blackstone and my lord Coke,) full of enthusiasm in agricultural matters, and whose observing habits and ripe judgment render him eminently useful to the State. After seeing the beautiful appearance of the field where the hoe had been used, we ordered one, and in its daily use through the summer, find our expectations of its excellence fully realized. It is manufactured at Danvers by Mr. WILLIAM BERRY, and may be purchased of him for the low sum of one dollar and fifty cents at his shop.

For the New England Farmer.

BEES.

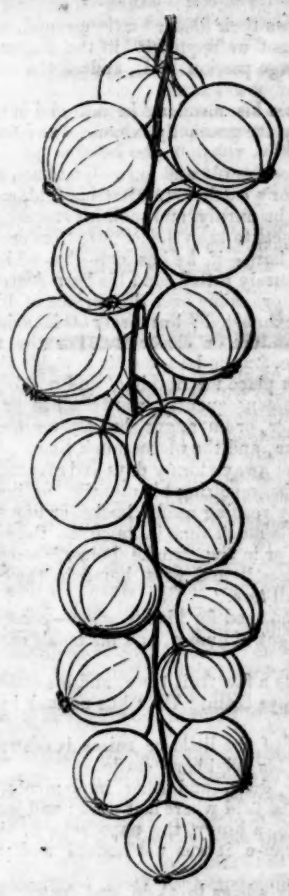
MESSRS. EDITORS:—I have seen that your correspondents have made the *New England Farmer* a medium for communication, and suppose others enjoy the privilege of making inquiries. I have kept bees for several years, and they have been very profitable, but the two last seasons have been unfavorable to their increase, by swarming, and making honey sufficient even for themselves. Now, I have attributed the cause of their ill success, to the dry weather, and suppose wet seasons prolonging the blossom of flowers, are better adapted to the nature and growth of bees in our north New England States. J.

From the Elms.

MAY'S VICTORIA CURRANT.

"The luscious clusters of the vine
Upon my mouth do crush their wine."

The currant is easily raised and propagated. They are highly relished by many people eaten from the bushes, and make a capital *jelly*, *shrub*, and *wine*. As an accompaniment to roasted or boiled poultry, lamb or mutton, the jelly is unrivalled. It is also excellent for persons of feeble appetite, and for tarts, &c. From the shrub may be prepared a healthful summer drink, a thousand times preferable to the *lemonade* made from *sulphuric acid!* A pleasant wine may also be made



from their expressed juice. In *Deane's* old "New England Farmer or Georgical Dictionary," published in 1822, he says the wine from the *white* currant is far better than that from the red; that it ameliorates exceedingly by age, becoming equal to the best of Malaga wine, after being bottled a year or two.

The MAY'S VICTORIA is a new variety from England. The bunches are sometimes five inches long; the berries are large, bright red, excellent flavor, and hang long on the bush in perfection. Foliage thick deep green. Very fine.

Some handsome specimens of the CHERRY CURRANT have been exhibited at the rooms of the Mass. Horticultural Society the present season, but we are not sufficiently acquainted with its merits to recommend it. Its appearance was very fine.

THE THRIFTLESS FARMER.

The *Fort Wayne Times* gives the following life-like portrait of a "thriftless farmer:"—

The thriftless farmer, then, provides no shelter for his cattle, during the inclemency of the winter; but permits them to stand shivering by the side of a fence, or lie in the snow, as best suits them.

He throws their fodder on the ground, or in the mud, and not unfrequently in the highway; by which a large portion of it, and all the manure is wasted.

He grazes his meadows in fall and spring, by which they are gradually exhausted and finally ruined.

His fences are old and poor—just such as to let his neighbor's cattle break into his field, and teach his own to be unruly, and spoil his crops.

He neglects to keep the manure from around the sills of his barn—if he has one—by which they are prematurely rotted, and his barn destroyed.

He tills, or skims over the surface of his land, until it is exhausted; but never thinks it worth while to manure or clover it. For the first, he has no time, for the last, he "is not able."

He has a place for nothing, and nothing in its place. He consequently, wants a hoe or a rake or a hammer, or an augur, but knows not where to find them, and thus loses much time.

He loiters away stormy days and evenings when he should be repairing his utensils, or improving his mind by reading useful books, or newspapers.

He spends much time in town, at the corner of the street, or in the "snake holes," complaining of hard times," and goes home in the evening, "pretty well *tore*."

He has no shed for his fire wood—consequently his wife is out of humor, and his meals out of season.

He plants a few fruit trees, and his cattle forthwith destroys them. He "has no luck in raising fruit."

One-half of the little he raises is destroyed by his own or his neighbors' cattle.

His plow, drag, and other implements, lie all winter in the field where last used; and just as he is getting in a hurry, the next season, his plow breaks, because it was not housed and properly cared for.

Somebody's hogs break in, and destroy his garden, because he had not stopped a hole in the fence, that he had been intending to stop for a week.

He is often in a great hurry, but will stop and talk as long as he can find any one to talk with.

He has, of course, little money; and when he must raise some to pay his taxes, &c., he raises it at a great sacrifice, in some way or other, by paying an enormous shave, or by selling his scanty crop when prices are low.

He is a year behind, instead of being a year ahead of his business—and always will be.

When he pays a debt, it is at the end of an execution; consequently, his credit is at a low ebb.

He buys entirely on credit, and merchants and all others with whom he deals, charge him twice or thrice the profit they charge prompt paymasters, and are unwilling to sell him goods at cost. He has to beg and promise, and promise and beg, to get them on any terms. The merchants dread to see his wife come into their stores, and the poor woman feels depressed and degraded.

The smoke begins to come out of his chimney late of a winter's morning, while his cattle are suffering for their morning's feed.

Manure lies in heaps in his stable; his horses are rough and uncurried, and his harness trod under their feet.

His bars and gates are broken, his buildings unpainted, and the boards and shingles falling off—he has no time to replace them, the glass is out of the windows, and the holes stopped with rags and old hats.

He is a great borrower of his thrifty neighbor's implements, but never returns the borrowed article, and when it is sent for, it can't be found.

He is, in person, a great sloven, and never attends public worship; or if he does occasionally do so, he comes sneaking in when the service is half out.

He neglects his accounts, and when his neighbor calls to settle with him, has something else to attend to.

Take him all in all, he is a poor farmer, a poor husband, a poor father, a poor neighbor, and a poor Christian.

For the New England Farmer.

IMPROVEMENT AND HAYING.

MESSRS. EDITORS:—The twenty-fifth of July is calculated by astronomers as the commencement of "dog-days," and I suppose most farmers have finished haying, and the gathering of English grains; but the old native meadow is yet to be cut and secured in dog-day weather;

> When rain-drops lightly beat,
> And the muggy winds do blow.

The weather has been remarkably fine for haying in July, and I have cut and secured about forty tons of upland English grass, without having a single load of damaged hay. This morning I finished cutting a meadow that has been reclaimed; and gave a heavy crop of herdsgrass.

A few seasons ago, August and September, I thoroughly ditched, so as to drain the meadow, taking the mud to the barn-yard, for manure on upland, and on the sides of the meadow spreading gravel, and a coat of manure. The low parts we bogged, seeded with herdsgrass and clover, and have since manured. Now, on what was formerly light meadow hay, is cut a heavy sward of English herdsgrass. J.

From the Elms.

For the New England Farmer.

TO PREVENT BUGS FROM EATING VINES.

MR. EDITOR:—I have found by experience that bugs have a choice in what they eat; they prefer winter squashes to melons or cucumbers, and by planting squashes among the melons, they will be protected, the bugs preferring to commit their depredations on the squashes. S. E. HOOKER.

Poultney, Vt., 1853.

ACTION OF DROUGHT ON PLANTS.

The article below which we take from the *Mark Lane Express*, (an excellent agricultural and miscellaneous paper published in London,) could scarcely be more applicable to this meridian, if written expressly for it. It will come to us with peculiar force now, when nearly all our crops are suffering from a want of rain. We commend it to each of our readers, as affording a plausible theory *why plants require so much water*. It also affords strong arguments in favor of irrigation, especially in a climate like ours, where the three summer months are usually very dry and hot.

The specific action of drought on plants is one of the problems not yet entirely solved. Whether it is the indirect waste of moisture on the plants by evaporation, or the want of the due proportion of water necessary to build up the structure of plants, or whether it is some indirect action on the constituents of the soil, is by no means a settled question.

The present season has afforded abundant illustrations of the effect of want of moisture on the several plants the farmer has to cultivate; and what is more remarkable, the drought, though absolutely less than it was last year, seems to have had a far greater effect on the plants. The meadows especially appear to have suffered. In all the northern counties particularly, the grass crop is peculiarly affected. The finer and shorter grasses are absolutely either wanting, or so thin that they show the meadows to be without bottom grass. The coarser grasses are tall, but thin, and running to seed, forming no tillering stalks, and few blades in comparison to those of former years. The corn is the same — thin, stunted, and spiry in its character. There has been no tillering — no thick matted surface. The drills have been visible up to the present period, and the stems are fast running to ear before half the usual height is attained, being also hard and yellow in color, and as different as possible from the graceful flopping blade the wheat plant usually exhibits at this period.

Now, in what specific way has this drought so acted on the plants? In ordinary vegetables 90 per cent of their whole structure is simply water. Hence it is easy to conceive how large a quantity of that material is necessary during their growth and development. But there was no such absolute deficiency this season. The soil always contained a comparatively large amount of moisture: the dews were often plentiful, amounting to fully as much more as any diurnal development of the plant could require, and all the tables of rain fallen in the spring of this year, we have seen, showed a larger quantity than in the corresponding months of last year. Hence it seems we must look to the abstract cause of the injury—to somewhat beyond the mere denuding of the plant of water, as such.

We think the theory of Liebig far better established this season. The plant, to take up its elements, must have them presented to it in a state of solution. The action of rain operates to dissolve regularly and gradually the material required by the plant, both in the soil and in the rocks from which the soil continually forming, by disintegrating the small particles existing in the land. These are being supplied to the plant by the rains as it requires them, but this year they have not been so washed out and made ready for its use. But why did not the same cause operate equally in the spring of 1852? Simply because the incessant rains of the autumn and early winter had washed out the soluble constituents of the soil, so as to leave less free material in the land by far than in the previous spring, and hence the ordinary drought had much greater effect on the plants this year than it had last.

The effect of water on plants, regularly supplied, is most wonderful. Those who have seen the Clipston water meadows, and the small and clear stream, which produce from three to five crops of grass per annum, either depastured or mown, or partly the one and partly the other, must be convinced that it is almost as much owing to the plentiful supply of water in a dry season, as to any great amount of manure held by that small river, in solution, that the vast increase of grass is produced. By watering, Mr. Kennedy, of Myremill, keeps close upon a thousand head of stock on 90 acres of Italian rye-grass. In ordinary seasons, from five to nine sheep can be kept on one acre of land; the latter may be done in a dropping season, on clover lays, on well-cultivated land; but with the aid of a little artificial food and by the application of *liquid* manure, in the shower form, by steam, Mr. Kennedy can keep fifty-six sheep per acre! Nor can we believe that this is altogether due to the manure. To that it is partly owing, doubtless; but it is by far more owing to its being *watered* with that manure in a soluble state, and so fit for the immediate use of the plants. Hence he is independent of season. The water-drill, to which we before alluded, is an application of the same principle; and the wonderful results of the dressing of dissolved bone liquid, in a dry season, by the Duke of Richmond, is a powerful fact in the same direction.

That it is the want of soluble manure, or, in other words, elements of plants, which is mainly the cause of the injury, is manifest from the fact that all the poorest land has suffered by far the most from the drought. The very highly manured land has sustained the least damage; while on land to which very highly soluble manures, Peruvian guano, for instance, and similiar materials, have been applied, the crops are growing vigorously.

Nor let it be forgotten that the rain brings down the ammonia, which, in dry states of the atmosphere, will float undisturbed; and this failing, as well as the soluble supply below, would of course aggravate the cause of injury.

But what can now be done, with the meadows ripe, and not one-half or one-third of a crop! We say, free your pastures at once, and put in the whole of the stock, if rain has come, and eat up the meadows thoroughly bare. This will amply relieve the pastures, and afford them the chance of an entire new growth. The meadows, with their small produce, will soon be eaten up; and let a dressing of two or three cwt. of the best guano be then applied to them, and a beautiful new crop, and not very late, will yet be secured. the mowing machine and haymaker will soon get

it, even if it should clash with the harvest; but we are clear that on all kinds of land more produce, with the present crop given in, will be obtained by such a course, and the present crop will be very acceptable of itself. The fog, or aftermath, has also every prospect of being better after thus supplying the deficiency of the year.

For the New England Farmer.

HIGHWAYS--A BEAUTIFUL FEATURE.

MR. EDITOR:—In a recent excursion in my own vicinity, a few days since, I was gladdened by a prospect such as I had long desired to look upon in our hill country, but after years of patient wishing and waiting, had almost despaired of ever seeing, unless it were in anticipation. It was the beautiful sight of a highway free from all wandering animals, with no long furrows plowed on the sides of the travel path to produce a harvest of weeds, whose feathery seeds may be blown for miles, perhaps to vegetate and disfigure some field now smiling in fresh and valuable herbage; no deep gullies or dangerous ditches to disfigure the scenery, and render all "*turning out*" when two conveyances met, dangerous to the nerves, if not to the life and limbs of passengers, but a gentle sloping declivity, just enough to turn the water off. Then the grass, tall, beautiful grass, waving in the light breeze and reflecting bright jewels in the dew drops which hung upon it! how rich it looked, skirting that smooth, well-wrought highway!—and how beautiful the ground will look again, when the mower has smoothly shorn it of its heavy burthen and it is gathered into the garner, all fresh and green and lovely as the earliest herbage of spring.

It has been a source of continued wonder to me, that in a civilized age this street feeding should be tolerated at all. The practice has always looked as a relict of dark and barbarous times, originating and continued more from a desire to invade the rights of others, rather than in adopting the precept of doing justly and loving mercy. I rejoice to see the practice so far abandoned, as to develop some bright spots along our waysides.—While I feel a comfortable assurance that *no reasonable being*, where he once sees and experiences the benefits, will willingly return to the old way of turning sheep, geese, hogs, cattle, horses, pell-mell into the street, to the annoyance of everybody and the neighborhood in particular.

Then, when the streets are once cleared of these wandering, mischievous herds or collection of beasts that go about without owner and keeper to exhibit themselves, admitting themselves freely wherever they find a deficiency of fence, into the grain-field or mowing land of orderly and quiet citizens instead of taxing an admittance fee, what improvements in our highways may we not reasonably expect! Instead of the too common and disagreeable fallows left by the wayside, we shall see the sod remain firm and protected beyond the necessary requirements for the preservation of the road, rough places will be made smooth by the wayside as well as *in the way*, and handsomely laid to grass. Trees will be planted all along, and in variety as great as the neighboring woodlands will permit, giving shade to the traveller, beauty to the scenery, and furnishing subjects of various investigations, to awaken the mind and enrich the heart. Then, too, if men cannot sit under their own *vines* and *fig-trees* with nothing to molest or make them afraid, they may stand a much better chance than we fear many now do, of retiring for the night, quiet in the reflection that the crops on which they have spent so much care, and which promise to repay their labor so generously, will not ere the morning, be destroyed by some troop of wandering animals.

I have not written supposing what I have seen is a solitary sight confined to a single town or neighborhood. There are many such places, but not all, and I have been induced to hold up this one example as a subject of imitation, to places where no such beauties mark the landscape, and encourage them to hasten the day when our country shall be free from a loathsome, disagreeable, unjust, unneighborly and unlawful practice.

Yours, truly, W. B.

Elmwood, July 20, 1853.

For the New England Farmer.

GARDEN AND FIRE ENGINES.

MR. EDITOR:—In a late number of your paper, in a notice of a garden engine, you say "It will throw water to the height of forty feet, and to the distance of seventy feet horizontally. It may, therefore, be found of use in extinguishing fires in buildings." That remark is in accordance with the general belief of the use of such engines for extinguishing fires. I have no doubt but that if any twelve of your customers who live a mile from a large fire engine, should purchase a small one, and their buildings should take fire, they would at least, eleven of them, run for the large one at the village, and never once think of trying their own, or if they thought of it, would give it up as a foolish idea. A more mistaken idea than this, of fire engines, never entered the mind of man. Fire does not wait while we run for engines, but increases in arithmetical progression, and therefore if the engine you have described, will not put it out when first discovered, the largest in the world cannot, if we have to run but half a mile and it then has to be drawn to the fire. I want to see a better description of the new Hitchcock engine. I know its power, and I tell you it is to create an entire change in our fire departments. Hundreds of towns in the State cannot afford to purchase a large one, who could have half a dozen of these; and three of these at proper distances, are better than a large one, because so much sooner brought to work. Again, many towns who have the large ones should purchase small ones for the "outsiders," who pay their part of the expense while they are wholly unprotected. But enough for this time. If you please, I will again trouble you upon this important subject, and now only say that any of your friends who purchase the engine for garden purposes, will have a most useful and effectual fire engine. B.

Watertown, 1853.

REMARKS.—Having used the engine you speak of, and "knowing its power," we hope you will furnish the description which the public needs. The subject is one of importance to all, but especially to farmers, and we thank you for calling attention to it.

THE HIVE AND HONEY BEE.

This is the title of a new work on the Hive and Honey Bee, or a Manual for Bee-keepers, by Rev. L. L. Langstroth, of Greenfield, Mass.

We have not only read the book, but conversed with the Author, with interest and delight. Huber, and several other writers on bees, were somewhat familiar to us, and we had mingled considerble practice with our reading and observation, and our conviction is, that the writer of this work understands the habits and wants of the Bee better than any other person who has writen upon the subject. Huber devoted eight years to a study of them: our author has given a large portion of his time to this study for sixteen years, and during a considerable portion of the time has been a bee master, having a personal care of numerous swarms.

We can use no language more pleasant and appropriate than that used below by the *Christian Register*, in noticing this interesting book. It says:—"This treatise is written by one who evidently delights in his theme, whose failing health has compelled him to leave the field of theology for one of Natural History, but who finds there not less incitements to the highest sentiments. Every line has traces of being written *con amore*, (for the love of it.) The book will be interesting and valuable to two classes of readers. To those who delight in studies of natural history—and who should not? this work, and especially the first six chapters, which treat of the "manners and customs" and wonderful instincts of these little people, will be of special value. It details some facts which would be incredible did they not seem verified by careful experiment. It seems that if you adopt the same rule in treating with bees that Shakespeare recommended in treating with irascible and crusty people in general, you will never get stung—that is, always approach them after dinner. Bees on a full stomach are as harmless as so many flies, unless you insult them. The author says too—and he is borne out fully not only by his own observation but by good authority—that the queen bee and the worker, so vastly different in all their instincts and habits and their form and organization, are yet produced from the same kind of egg, all the difference being produced by the difference in the food given to the larvæ—a fact worth something in showing what circumstances can do in producing diversity of races.

"Another class of readers will value this book for its practical lessons in the management of bees. The author is the inventor of a new hive, which he thinks of very great value. The book is very full on the treatment, feeding and management of bees, and though we cannot judge of this portion from any experience we have had, we can yet say that the author writes like one who thoroughly understands his subject."

This week we give an extract, and take the statement of what may be done by the use of this hive.

L. L. Langstroth's Movable Comb Hive.

Patented, Oct. 5th, 1852.

Each comb in this hive is attached to a separate, movable frame, and in less than five minutes they may all be taken out, without cutting or injuring them, or at all enraging the bees. Weak stocks may be quickly strengthened by helping them to honey and maturing brood from stronger ones; queenless colonies may be rescued from certain ruin by supplying them with the means of obtaining another queen; and the ravages of the moth effectually prevented, as at any time the hive may be readily examined and all the worms, &c., removed from the combs. New colonies may be formed in less time than is usually required to hive a natural swarm; or the hive may be used as a non-swarmer, or managed on the common swarming plan. The surplus honey may be taken from the interior of the hive on the frames or in upper boxes or glasses, in the most convenient, beautiful and saleable forms. Colonies may be safely transferred from any other hive to this, at any season of the year from April to October, as the brood, combs, honey and all the contents of the hive are transferred with them, and securely fastened in the frames. That the combs can always be removed from this hive in ease and safety, and that the new system, by giving perfect control over all the combs, effects a complete revolution in practical bee-keeping, the subscriber prefers to prove rather than assert.

Those who have any considerable number of bees, will find it to their interests to have at least one movable comb hive in their Apiary, from which they may, in a few minutes, supply any colony which has lost its queen, with the means of rearing another.

For the New England Farmer.

THE CANKER WORM.

Mr. Editor:—In the last *Farmer* their is a description of the "Palmer worm," by Dr. Harris. According to his description of the insect they are the same worm which has committed such ravages in this section, and all through this region of country. They are known here by the name of "canker worm," and as near as our memory extends they are the same worm which made such destruction here in 1836. We have seen these worms in small numbers, several times since that period, but not to do any particular damage to trees. In the eastern part of this State, near the sea-shore, they have made their appearance several times in the last ten or twelve years. Being in the northern part of this State last week, (Winchester and Norfolk,) we found that there the worms had not troubled them at all. This goes to prove our previous convictions that this worm does most of its work near the sea-shore, extending some forty or fifty miles inland. From all accounts

and descriptions of this worm in different sections, the present year, this insect appears to be one and the same thing.

Now, whether this be the genuine canker or palmer worm, we cannot say. But one thing is certain, they are destructive everywhere, let them be called by one name or another. They make their appearance in this section, about the 6th or 10th of June, and by the 1st of July they are gone. They confined most of their work here, to the apple tree and shrub oak bushes, and this fact we remember, was the same in 1836. Now if Dr. Harris, or any one else, will give us the habits of both the palmer and canker worm, and wherein they differ in character, they will confer a great favor on the public. Yours truly, L. DURANT.

Derby, Ct., July 18, 1853.

For the New England Farmer.

TURNIPS AND GRASS SEED.

H. F. French, Esq., of Exeter, N. H., suggested in the *New England Farmer*, not long ago, what was to us a novel method of laying down land to grass. He says, "I last year laid down about a half acre with grass seed and English turnips, the last of July. Most of my turnip seed proved to be *mustard*, but not all, and I picked up between thirty and forty bushels of excellent turnips, with no extra labor or expense but the gathering. I *did*, however, apply one barrel of bone dust to the land, for the good of the turnip crop especially."

Mr. French does not say what grass seed he put upon it, or how it succeeded. We presume, however, that it was herds' grass and red top, as in another place he recommends sowing clover on the snows in spring, as clover, he says, is apt to die during the winter, when sowed in the fall.

I cut the above from the *Maine Farmer*, one of the best papers in the country. I am proud to be able to give its learned editor information, even upon a small matter. I *did*, as he supposes, sow herds' grass and red top, at the rate of about a half bushel of the former, and a bushel of the latter, to the acre, with the turnip seed, all mixed together, on the 28th day of July. The ground was so dry when I plowed that no moisture was perceptible at the bottom of a deep furrow. It was sowed, brushed and rolled, and left literally *in dust and ashes* (one barrel of bone dust to 25 bushels of ashes!) We had very little rain till the last week in August. The grass seed came up well, in the fall. I sowed clover seed on the snow in spring. The grass was cut last week, a heavy crop, more than half clover, at the rate of about two tons to the acre. This fact about the clover deserves notice. No clover seed was sowed last summer—the land had not been in grass for six years, and the clover did not grow from the seed sowed in the spring. Sowed in spring it does not head before haying time, and this clover was of full size, so as to *lodge* in spots. It must have grown from seed which had long laid in the ground, or what perhaps is more probable, which had been carried on in manure the year before I sowed it. No manure except *the dust and ashes* was applied in 1852, and there probably was no clover seed in that! One fact seems to be indicated by this experiment, namely, that clover sown in July does not always winter kill. I sowed one acre of new land with herds' grass seed and turnips, on the first day of the present July, with two bags of superphosphate of lime, putting on at the same time, six pounds of clover. The turnips and grass seed are up and promise well. I omitted the red top, because it could not be procured at a reasonable price. Hay is worth sixteen dollars a ton here from the field, and turnips are valuable. Try the experiment. Any time before the middle of August, will be in season. H. F. FRENCH.

Exeter N. H., July 18th, 1853.

AMMONIA.

We have been supplied by the Publisher with the sheets of a forthcoming work on the *Elements of Agricultural Chemistry*, by Prof. JOHNSTON, of England. It treats upon the operations of the farm, and explains the nature of the substances used as fertilizers with more clearness than any other work we have seen. The language employed is simple, yet expressive, and any farmer will scarcely fail to find important aid, and much gratification, in frequent reference to its pages.

As there is much use made of the term, *ammonia*, we have selected a section briefly describing it, and stating its effects and value to the farmer. Next week we propose to give another extract on the "*improvement of the soil by laying down lands to grass*," and when the whole work is before us, shall speak of it more particularly.

It is to be published by SAXTON, the indefatigable Agricultural Publisher of New York.

OF AMMONIA, ITS PROPERTIES AND PRODUCTION IN NATURE.

If the sal-ammoniac, or the sulphate of ammonia of the shops, be mixed with quick-lime, a powerful odor is immediately perceived, and an invisible gas is given off, which strongly affects the eyes. This gas is ammonia. Water dissolves or absorbs it in very large quantity, and this solution of the gas in water forms the common hartshorn of the shops. The white solid smelling-salts of the shops (carbonate of ammonia) are a compound of ammonia with carbonic acid and a little water.

Ammonia consists of nitrogen and hydrogen only, in the proportion of 14 of the former to 3 of the latter by weight; or 17 lb. of ammonia contain 14 lb. of nitrogen and 3 lb. of hydrogen.

The decay of animal substances is an important natural source of this compound. During the putrefaction of dead animal bodies, ammonia is invariably given off. From the animal substances of the farm-yard it is evolved during their decay or putrefaction, as well as from all solid and liquid manures of animal origin.

Ammonia is naturally formed, also, during the decay of vegetable substances in the soil. This happens in one or other of three ways.

a. As in animal bodies, by the direct union of the nitrogen with a portion of the hydrogen of which they consist.

b. Or by the combination of a portion of the hydrogen of the decaying plants with the nitrogen of the air.

c. Or when they decompose in contact, at the same time, with both air and water—by their taking the oxygen of a quantity of the water, and

disposing its hydrogen at the moment of liberation, to combine with the nitrogen of the air, and form ammonia.

The production of ammonia by either of the two latter modes, takes place most abundantly when the oxygen of the air does not gain very ready access. Such are open subsoils in which vegetable matter abounds. And thus one of the benefits which follow from thorough draining and subsoil plowing is, that the roots penetrate and fill the subsoil with vegetable matter, which, by its decay in the confined atmosphere of the subsoil, gives rise to this production of ammonia. When thus formed in the soil, it is at once absorbed and retained by the humic and ulmic acids already described, renders them soluble, and enters with them into the roots of living plants.

Ammonia is also formed naturally during the chemical changes that are produced in volcanic countries, through the agency of subterranean fires. It escapes often in considerable quantities from the hot lavas, and from crevices in the heated rocks.

It is produced artificially by the distillation of animal substances, (hoofs, horns, &c.,) and during the burning, coking, and distillation of coal. Soot contains much ammonia, while thousands of tons of that which is present in the ammoniacal liquors of the gas-works, and which might be beneficially applied as a manure, are annually carried down by the rivers, and lost in the sea.

Of the ammonia which is given off during the putrefaction of animal and vegetable substances, a variable proportion rises into the air, and floats into the atmosphere, till it is either decomposed by natural causes, or is dissolved and washed down by the rains. In the latter case it sinks into the ground, and finds its way into the roots of plants. In our climate, cultivated plants appear to derive a considerable proportion of their nitrogen from ammonia. It is one of the most valuable fertilizing substances contained in farm-yard manure; and as it is usually present in greater proportion in the liquid than in the solid contents of the farm-yard, much real wealth is lost, and the means of raising increased crops thrown away, in the quantities of liquid manure which are almost everywhere permitted to run to waste.

UNWORTHY BOOKS.

The *Western Plow-Boy*, published at Fort Wayne, Indiana, has received "*through the kindness of the publisher*," a copy in paper covers, of "Lafitte, or the Pirate of the Gulf," and gives it the best notice we have ever seen. We wish all editors had the courage to notice all books of that description in a similar manner. It shows the tendency of such writings, and closes its scathing criticism with the annexed paragraph:—

"We call attention to this subject, because we believe a light and corrupting literature, found both in books and newspapers, to be a serious and growing evil in our country; demanding the earnest consideration of all those who can reach and control, to any extent, the public mind. Ours is an excited age, and we want a literature that can soothe and steady as well as instruct the minds of the people."

SUMMER PRUNING OF THE GRAPE VINE.

The cultivation of the grape is as common as that of any plant that grows.

There is scarcely any one having a garden who does not consider this vine as one of the indispensables.

If he cannot raise one kind of grape, he can another, and there is no one but can raise to advantage the hardy and prolific native grape, the Isabella, for instance.

All native grapes are very luxuriant growers, throwing out shoots in one season, of from twenty to thirty feet in length, and producing a great mass of foliage.

The almost universal practice is to cut off all the shoots beyond the outer bunches of grapes, and to thin out a great portion of the foliage in other parts of the vine.

In fact to such a length do some operators carry this practice, that to see the vines soon after this "summer pruning" has taken place, one would almost suppose the poor vine was in the last stage of consumption, or to remind one very forcibly of a singed cat.

This operation is performed in the month of August, when the grapes are about the size of a pea.

The idea entertained and acted upon by these farmers is, that the growing fruit is robbed of its fair proportion of food, by letting too much young wood and foliage remain on the vine, and further, that it is absolutely necessary for the full development and maturity of the fruit, that the rays of the sun should in nowise be obstructed, but that each bunch should be fully exposed to its influence.

Now, for one, the writer thinks that if it is so necessary for the fruit to be exposed, nature would not cover it up so completely as she does with foliage. He does not believe in this assisting nature, as it is called.

It is a practice that, as men advance in knowledge and inquire into the rationality of things, will be exploded. It is already becoming every year more and more unpopular.

Dr. Findley, in a work published in 1843 on the subject, starts the following proposition:

1st. If all the leaves which a tree will naturally form are exposed to favorable influences, and receive the light of a brilliant sun, all the fruit which such a plant may produce will ripen perfectly in a summer that is long enough.

2nd. If all the leaves of a tree are exposed to such influences, all the fruit will advance as far towards ripening as the length of the summer will admit of; it may be sour and colorless, but that condition will be perfect of its kind.

3rd. But if all the fruit which a healthy tree will show is allowed to set, and a large part of the leaves are abstracted, such fruit, be the summer what it may, will never ripen.

4th. Therefore if a necessity exists for taking off a part of the leaves of a tree, a part of its fruit should also be destroyed.

5th. But, although a tree may be able to ripen all the fruit which it shows, yet such fruit will neither be so large nor so sweet under equal circumstances, as if a part of it is removed; because a tree only forms a certain amount of secretions, and if those secretions are divided among twenty

fruits instead of ten, each fruit will in the former case have but half the amount of nutrition, which it would have received in the latter case.

6th. The period of ripening in fruit will be accelerated by an abundant foliage, and retarded by a scarcity of foliage.

Dr. Lindley further states, that he considers these propositions as the expression of general truths, applicable in all cases, but especially to the vine.

If they are founded, as he believes, in well ascertained laws, then the rigorous summer pruning of the vine is totally wrong, He recommends, on the contrary, that not only should the whole crop of leaves be unpruned, but that the lateral shoots; always hitherto removed, should be allowed to remain; because all those laterals, if allowed to grow, would by the end of the season have contributed somewhat to the matter stored in the stem for the nutrition of the fruit; because the preparation of such matter would have been much more rapid; and because the ripening of the fruit, which depends on the presence of such matter, would have been in proportion to the rapidity of its formation.

It is a mistake, continues he, to imagine that the sun must shine on the bunches of grapes in order to ripen them. Nature intended no such thing, when heavy clusters were caused to grow on slender stalks, and to hang below the foliage of branches, attached to trees by their strong and numerous tendrils. On the contrary, it is evident that vines naturally bear their fruit in such a way as to secure it from the sun; and man is most unwise when he harshly interferes with this intention. What is wanted is the full exposure of the LEAVES to the sun; *they* will prepare the nutriment of the grape—*they* will feed it, and nurse it, and eventually rear it up into succulence and lusciousness.

The same writer goes on to say:—"When, however, the branches have grown for many weeks, and are in autumn beginning to slacken in their power of lengthening, theory says, it is then right to stop the shoots by plucking off the ends, because after that season newly formed leaves have little time to do more than organize themselves, which must take place at the expense of matter forming in other leaves. Autumn stopping of the vine shoots is therefore not only unobjectionable, but advantageous, for the leaves which remain after that operation will then direct all their energy to the perfection of the grape."

Should the writer, by calling your attention to this subject, succeed in awakening the interest of the vine growers in this neighborhood, to the pernicious effects of summer pruning, he will be satisfied, and will conclude with a single remark—

If, as we are told, leaves are to the plant what lungs are to the human body, we cannot wonder that summer pruned grape vines resemble persons in the last stage of consumption.

T. M. WILTBERGER.

—*West Philadelphian.*

SINGULAR CIRCUMSTANCE.—One day last week, as some sawyers were engaged in sawing up an elm tree of extraordinary dimensions at the canal-wharf, near this city, they found a cavity, or decayed part, in the middle of the tree, and 30 feet at least from the top, in which was discovered the nest of a wood-pigeon, containing two eggs, which were quite perfect, so far, at least, as regards outward appearance. One of the eggs was accidentally broken, but the other has been carefully preserved by Mr. Charles Pillinger, clerk to Mr. George, slate and timber merchant, as a curiosity. The men who made the discovery were sadly puzzled to guess how the nest and eggs could by any possibility get into such a place, especially as it is a fact well known that the wood-pigeon never builds in the hollows of trees, but in the branches. The only manner in which we can account for this phenomenon is, that the bird built her nest and deposited her eggs in the fork of the tree, then deserting them, which this bird often does, and that the body of the tree, in its growth, closed around them, leaving the nest in the singular situation in which it was found. An immense space of time must have intervened since the eggs were thus deposited considering that, since that time, the body of the tree must have grown 30 feet or upwards in height. —*Hereford (English) Journal.*

For the New England Farmer.

A NEW SPECIES OF CANKER WORM.

MR. EDITOR:—We have noticed in this town a new species of worm, whose first appearance, to attract attention, was on apple and forest trees, particularly the oak. Where they work, the leaves of the trees lose their green appearance, as though scorched by fire. They appeared about the first of June, and by the last of the month had nearly all disappeared, leaving the effect of their destructive habits sadly visible. Some call them the *canker worm*, but they are quite a different worm from the canker worm which made such havoc in apple orchards about forty years ago. These worms are, when grown, a little over half an inch long; but the canker worm was full one inch long, and much larger and darker colored, and moved differently; but both were alike in providing themselves with a fine spun web, when they happen to fall by the shaking of the leaf or limb of the trees where they are eating. If the limb is jarred they fall suspended by this fine web; some fall one foot, some two, three or four feet, and then commence climbing up their rope like a good sailor, and regain their previous position.

I find by the papers that this worm has been noticed in different parts of this State, and some other States. If it increases next year, our forest and apple trees will meet with a destruction fearful to contemplate. In this part of the State, some forty years ago, the canker worm made such havoc of apple trees that owners of orchards thought the insect would finally destroy all our apple orchards. One farmer here, in the month of March, in order to get rid of the pest, *cut off every limb of his apple trees*, so that the worm could have no sustenance that year! But behold that season *none* were seen; they all disappeared, and have not made their appearance since. This was 39 years ago. So it was entirely needless for him to thus mutilate his apple trees at that time.

ISAAC STEVENS.

Mansfield, July 4th, 1853.

P. S. Destructive insects are very numerous here this year. I had growing in my garden a nice patch of parsnips for seed. Looking at them a week or two ago, I found the seed nearly destroyed by a fat looking worm, that by the aid of

his web wrapped the seed together and commenced eating away until the whole of the seed was destroyed. We picked them up, and upon breaking open the stalks, the pith was pretty well filled with the same kind of worm which destroyed the seed, and had also destroyed the pith of the plant.

I. S.

For the New England Farmer.

CRANBERRY CULTURE.

Mr. Editor:—In company with a friend, I visited Mr. N.'s patch of cranberries, that have been under culture for four or five years past, and have been several times noticed in your journal. I found him busily occupied in clearing out all impediments to their growth, such as intruding grass, and weeds, and superfluous runners. Between the rows there appeared to be a dressing of light colored sand, on which the runners extended. Many of the rows were thickly matted, and fully covered with berries. Others had but few berries on them. Mr. N. explained this, as caused by severe frost, shortly after the growth of the vine started in the spring. He thought the crop would be diminished one-half from this cause. He also showed us berries that had a reddish color, and explained that this appearance was caused by a worm in the berry, which was apparent on opening it. He thought this worm was implanted in the fruit by an insect, not unlike the *yellow wasp*, but of smaller size. He had seen many of these, dodging about among the plants, and pointed out some while we were there. I speak of these facts in relation to his culture, because he has pursued the culture of this berry with better success than I have elsewhere known upon the upland. He has about half an acre under culture, a part of which has yielded berries for *five years*. He states that the produce the last season fully paid for the attention given to them—estimating the cranberries at *four dollars* per bushel. I can say, from my own knowledge, that the fruit was worth double that which is usually grown on meadow land. I consider the upland culture of the cranberry, as worthy of more attention than it has received. There is no vegetable grown that will find a readier market.

Danvers, July 14, 1853. P.

For the New England Farmer.

MILK AND BUTTER.

Mr. Brown:—After seeing some butter stories in the papers, I thought I would give you an account of some of my butter and milk. I have a four year old cow, of the Webster stock, a cross of the Alderney blood, that for three weeks has averaged sixteen milk quarts per day, and as I am raising a heifer calf from her, I could set the milk only from night until morning, and from morning until night, then take the cream from it and give the milk to the calf. We made 2¼ lbs. butter daily, for some days, and after seeing the Springfield butter story, I set a quantity of milk for a proper time for the cream to rise, and to ascertain how much milk it would take for a pound of butter. From six quarts of milk I had 19 ounces of butter of the nicest quality. The feed for the cow was simply what grass she could get in a good pasture, and one quart of meal per day.

Yours truly, J. Hatch.

South Marshfield, 1853.

For the New England Farmer.

TRANSACTIONS OF THE AGRICULTURAL SOCIETIES OF MASS.

Mr. Editor:—Within a few weeks past, there has issued from the press of White & Potter, State printers, a Volume of Transactions of the Agricultural Societies of the State of Massachusetts. The typographical execution of the volume is creditable to the press from which it has issued. The volume contains nearly eight hundred pages, and is a monument to the industry and perseverance of the Hon. Amasa Walker, who acted as Secretary of the State Board of Agriculture, until a permanent Secretary was appointed in April last. It exhibits, too, the excellent judgment of the Hon. Secretary in the selections he has made from the various reports and addresses that were put into his hands. To the transactions of the various Agricultural Societies, which constitute the main body of the volume, are added the doings of the State Board of Agriculture, and the laws of the State in relation to Agricultural Societies.—Although these additions increase the size of the volume, yet they add much to its value, and we are glad to have the information they contain in such shape that we can conveniently refer to it.

I propose, Mr. Editor, to run over the volume and give your readers the benefit of such notes as I may make in my progress. I will endeavor to keep within reasonable limits, but should I become prosy and tedious, please exercise your editorial authority, and rap me over the knuckles, and I will take the hint. I have no idea how long it will take me, or how much I may say; but you and your readers have this circumstance in their favor, that dog days are not favorable to long disquisitions. But to my task; for I propose to make a beginning in this number, and in the first place, I notice that there is a full and accurate index, which much increases the value of the book, and adds very much to the convenience of using it.

In the next place, there is a list of Agricultural Societies of the State, and the times when their several exhibitions are to held in 1853. This is a convenient table of reference, and perhaps it would be well to republish it in your paper. It may save some thousands of your readers the necessity of asking, "when is our cattle show to be!" The first report is that of the Mass. Society for the Promotion of Agriculture. This is mostly occupied with statements respecting the Alderney stock imported by the society. The number of animals of this stock now in possesion of the society is eleven.—They are represented as in a thriving condition, and as having endured, without inconvenience, the cold of the last winter. The report states "that nothing has occurred to throw any doubt on the character of this race, as a most excellent stock for the dairy."

We are somewhat surprised to learn that the President and Secretary, together with Mr. Motley, who has the care of the Alderney stock, have arrived at the conviction that the Ayrshire stock formerly imported by the society, has failed to give satisfaction, and that its importation has been of little or no advantage to our stock.

Now we had arrived at a different conclusion. So far as our observation extends, Ayrshire cows, whether full-blooded or crossed with the Durham or with the native stock, are held in high estima-

tion, especially by those farmers who make milk for the market. We believe the demand for this stock was never greater than at the present moment, and that it is now worth from ten to twenty per cent more than any other stock in the market. We do not think that the butter-making qualities of this stock are equal to those of the Alderneys, but we do think that the quantity of milk they yield is greater than that yielded by them. We observe in this volume, that several of the premium cows in different parts of the State were Ayrshire cows, either full-blooded or mixed. The truth is, that in some sections of the State, the quality of the milk is more regarded than the number of quarts, while in other sections, quarts are of more importance than quality. Hence the difference of opinion with respect to different kinds of stock.

From the manner of the report, we should infer that some apology was thought necessary for importing the Alderney stock, and ceasing to make efforts to extend the culture of the Ayrshires. Now we don't think that any apology is needed. But rather that the society should import samples of all the good varieties with which they may become acquainted. We would gladly see specimens of all the good varieties known in the civilized world. One race may be better suited for one purpose, and another for another purpose. We cannot expect to find all the good qualities of the different kinds of stock, united in any one of them. One race is best for beef, another for milk, another for butter, another for the plow. Now, perhaps, by crossing these different races with each other, and with our native stock, we may obtain a variety that shall combine more good qualities than any one of them does at present; and indeed, unless we are much mistaken, some of our milk raisers are obtaining a fine variety from a cross between the Durhams and Ayrshires. We hope it will not be many years before the *mulctra fumantia* (foaming milk-pails) of Virgil will constitute the general rule, and not the exception, as at present, in all our dairies. J. R.

Concord, July 29.

For the New England Farmer.

THE SWALLOWS.

MR. BROWN:—In the last *Farmer* you wished correspondents in different sections of the country, to note the time of the departure of the "swallows." Last year I noticed the barn swallow here, as late as the 25th to the 28th of August. I think I have seen the chimney swallow as late as the last of September, or middle of October. As to the bank swallow and martin swallow, I cannot say at what time they leave the north. Last year I had a visit of birds which you call the Labrador swallow. They came in numbers, and built about a dozen nests in the space of about ten by twelve feet, under a corn house. They left with their broods about the first week in August, and were not seen again that season. This year they came back and built about thirty nests in the same place. They left with their broods about the 15th of July, and probably will not be seen here again until next season.

These birds build a curious nest, mostly of mud, and when done it looks something like a hornet's nest, with a small hole left near the top just large enough for the bird to enter. Most of these nests were near to each other, or joined together as near as they could well be. These birds are about the size of the common barn swallow, with a broad fan tail like the martin swallow. They appear to be very tame in their habits, as we could easily take them in their nests by a little caution. In the last four or five years we have had an occasional nest of these birds built under the eaves of the barn. But never did they come in any numbers until last season. During their stay here, particularly in the morning, they would fill the yard with their swift gyrations. And although, strictly speaking, the swallow is not a bird of song, their brisk clatter kept up together, is not dull music after all.

Whether these birds have bred in other places near here I cannot say, but am inclined to think they have not to any extent. Any further information in regard to the swallow, by you or any of your correspondents, would be gladly received.

Yours truly, L. DURANT.

Derby, Ct., July 26, 1853.

☞ Below we give another extract from "*The Elements of Agricultural Chemistry*," by Professor JOHNSTON, and soon to be published by SAXTON, of N. Y. We think the reader will find this, as well as the article last week on "Ammonia," as plain as a "pike staff."

LAYING DOWN TO GRASS.

IMPROVEMENT OF THE SOIL BY LAYING DOWN TO GRASS. FACTS WHICH HAVE BEEN ASCERTAINED.

On this subject, two facts seem to be pretty generally acknowledged.

First, That land laid down to artificial grasses for one, two, three, or more years, is in some degree rested or recruited, and is fitted for the better production of crops of corn. Letting it lie a year or two longer in grass, therefore, is one of the received modes of bringing back to a sound condition a soil that has been exhausted by injudicious cropping.

Second, That land thus laid down with artificial grasses diminishes in value again after two, three, or five years—more or less—and only by slow degrees acquires a thick sward of rich, nourishing natural herbage. Hence the opinion that grass land improves in quality the longer it is permitted to lie—the unwillingness to plow up old pasture—and the comparatively high rents which, in some parts of the country, old grass land is known to yield.

Granting that grass land does thus *generally* increase in value, three important facts must be borne in mind before we attempt to assign the cause of this improvement, or the circumstances under which it is likely to take place for the longest time and to the greatest extent.

1. The value of the grass in any given spot may increase for an indefinite period, but it will never improve beyond a certain extent—it will necessarily be limited, as all other crops are, by the quality of the land. Hence the mere laying down to grass will not make *all* land *good*, however long it may lie. The extensive commons, heaths, and wastes, which have been in grass from the most remote times, are evidence of this. They have,

in most cases, yielded so poor a natural herbage as to have been considered unworthy of being enclosed as permanent pasture.

2. Some grass-lands will retain the good condition they thus slowly acquire for a very long period, and *without manuring*—in the same way, and upon nearly the same principle, that some rich corn-lands have yielded successive crops for 100 years without manure. The rich grass-lands of England, and especially of Ireland, many of which have been in pasture from time immemorial, without receiving any known return for all they have yielded, are illustrations of this fact.

3. But others, if grazed, cropped with sheep, or cut for hay, will gradually deteriorate, unless some proper supply of manure be given to them—which required supply must vary with the nature of the soil, with the kind of stock fed upon it, and with the kind of treatment to which it has been subjected.

FORM WHICH THE IMPROVEMENT ASSUMES, AND HOW IT IS BROUGHT ABOUT.

In regard to the acknowledged benefit of laying down to grass, then, two points require consideration.

1. What form does it assume—and how is it effected?

The improvement takes place by the gradual accumulation of a dark-brown soil rich in vegetable matter, which soil thickens or deepens in proportion to the time during which it is allowed to lie in grass. It is a law of nature, that this accumulation takes place more rapidly in the temperate than in tropical climates, and it would appear as if the consequent darkening of the soil were intended, among other purposes, to enable it to absorb more of the sun's warmth, and thus more speedily to bring forward vegetation where the average temperature is low and the summers comparatively short.

If the soil be very light and sandy, the thickening of the vegetable matter is sooner arrested; if it be moderately heavy land, the improvement continues for a longer period: and some of the heaviest clays in England are known to bear the richest permanent pastures.

The soils formed on the surface of all our rich old pasture lands thus come to possess a remarkable degree of uniformity—both in physical character and in chemical composition. This uniformity they gradually *acquire*, even upon the stiff clays of the lias and Oxford clay, which originally, no doubt, have been left to natural pasture—as many clay lands still are—from the difficulty and expense of submitting them to arable culture.

2. How do they acquire this new character, and why is it the work of so much time.

When the young grass throws up its leaves into the air, from which it derives so much of its nourishment, it throws down its roots into the soil in quest of food of another kind. The leaves may be mown or cropped by animals, and carried off the field; but the roots remain in the soil, and, as they die, gradually fill its upper part with vegetable matter. On an average, the *annual* production of roots on old grass-land is equal to one-third or one-fourth of the weight of hay carried off*—though no doubt it varies much, both with the kind of grass and with the kind of soil. When wheat is cut down, the quantity of straw left in the field, in the form of stubble and roots, is sometimes greater than the quantity carried off in the sheaf. Upon a grass field two or three tons of hay may be reaped from an acre, and therefore, from half a ton to a ton of dry roots is annually produced and left in the soil. If anything like this weight of roots die every year, in land kept in pasture, we can readily understand how the vegetable matter in the soil should gradually accumulate. In arable land this accumulation is prevented by the constant turning up of the soil, by which the fibrous roots, being exposed to the free access of air and moisture, are made to undergo a more rapid decomposition.

But the roots and leaves of the grasses contain earthy and saline matters also. Dry hay leaves from an eighth to a tenth part of its weight of ash when burned. Along with the dead vegetable matter of the soil, this inorganic matter also accumulates in the form of an exceedingly fine earthy powder; hence one cause of the universal fineness of the surface-mould of old grass-fields. The earthy portion of this inorganic matter consists chiefly of silica, lime, and magnesia, with scarcely a trace of alumina; so that, even on the stiffest clays, a surface soil may be ultimately formed, in which the quantity of alumina—the substance of clay—is comparatively small.

There are still other agencies at work, by which the surface of stiff soils is made to undergo a change. As the roots of the grasses penetrate into the clay, they more or less open up a way into it for the rains. Now, the rains in nearly all lands, when they have a passage downwards, have a tendency to carry down the clay with them. They do so, it has been observed, on sandy and peaty soils, and more quickly when these soils are laid down to grass. Hence the mechanical action of the rains—slowly in many localities, yet surely—has a tendency to lighten the surface soil, by removing a portion of its clay. They constitute one of those natural agencies by which, as elsewhere explained, important differences are ultimately established, almost everywhere, between the surface crop-bearing soil and the subsoil on which it rests.

But further, the heats of summer and the frosts of winter aid this slow alteration. In the extremes of heat and of cold, the soil contracts more than the roots of the grasses do; and similar, though less visible, differences take place during the striking changes of temperature which are experienced in our climate in the different parts of almost every day. When the rain falls, also, on the parched field, or when a thaw comes on in winter, the earth expands, while the roots of the grasses remained nearly fixed; hence the soil rises up among the leaves, mixes with the vegetable matter, and thus assists in the slow accumulation of a rich vegetable mould.

The reader may have witnessed in winter how, on a field or by a way-side, the earth rises above the stones, and appears inclined to cover them; he may even have seen, in a deserted and undisturbed highway, the stones gradually sinking and disappearing altogether, when the repetition of this alternate contraction and expansion of the soil for a succession of winters has increased, in a great

* See the Author's *Lectures on Agricultural Chemistry and Geology*, 2d edition.

degree, the effects which follow from a single accession of frosty weather.

So it is in the fields. And if a person skilled in the soils of a given district can make a guess at the time when a given field was laid down to grass, by the depth at which the stones are found beneath the surface, it is partly because this loosening and expansion of the soil, while the stones remain fixed, tends to throw the latter down by an almost imperceptible quantity every year that passes.

Such movements as these act in opening up the surface soil, in mixing it with the decaying vegetable matter, and in allowing the slow action of the rains gradually to give its earthy portion a lighter character. But with these, among other causes, conspires also the action of living animals. Few persons have followed the plow without occasionally observing the vast quantities of earthworms with which some fields seem to be filled. On a close-shaven lawn, many have noticed the frequent little heaps of earth which these worms during the night have thrown out upon the grass. These and other minute animals are continually at work, especially beneath an undisturbed and grassy sward—and they nightly bring up from a considerable depth, and discharge on the surface, their burden of fine fertilizing loamy earth. Each of these burdens is an actual gain to the rich surface soil; and who can doubt that, in the lapse of years, the unseen and unappreciated labors of these insect tribes must both materially improve its quality and increase its depth? *

* In the *Prize Essays of the Highland Society* (vol. 1. p. 191,) the reader will find the testimony of a practical man that such was in reality the case, as observed by himself on part of his own farm in Roxburgshire.

NATIONAL AGRICULTURAL SOCIETY AND MOUNT VERNON.

We are happy to notice that the officers of the *National Agricultural Society* are promptly carrying out the objects proposed in one of the resolutions passed by the society at its last meeting in Washington. The suggestion, a most happy one we think, was made by the President, Col. WILDER, whose accustomed energy will see its accomplishment in good time.

A late *National Intelligencer* says:—"We learn that Mr. Lossing, the distinguished artist, is at the present moment occupied at Mount Vernon in taking a landscape view of the venerable mansion, and sketching some matters of interest connected with it, including the carved marble mantel, so beautifully sculptured with agricultural subjects. Mr. L. is employed in this duty by the United States Agricultural Society with a view to use his drawings in the designing of an ornamental diploma of membership. The idea is an excellent one, and we are satisfied that the Association could not, within the range of subjects which our country affords, have selected one more appropriate or acceptable to the followers of the virtuous vocation in the pursuit of which the Father of his Country manifested so great an interest, and which he so thoroughly understood."

INOCULATION—BUDDING.

The propagation of fruit is effected either by planting the germs, grafting or budding. Circumstances often render it necessary to adopt the first, and this necessity is generally encountered in newly settled regions where stocks and scions are not easily procured. It is also necessary for the nurseryman to sow seeds; but where one merely aims at securing an orchard—no matter what may be the description of the fruit, he can generally, with little trouble, procure the desired kinds in the immediate vicinity, and at less expense than he could possibly produce them himself, from seed. In raising trees from seed, no reliance whatever can be placed upon the truthfulness of the varieties. The seeds of the best russets, pippins, and Baldwins often produce inferior and even worthless varieties. This liability renders it necessary to graft or bud, upon stocks produced from such seeds, the kinds it is desirable to propagate. For this purpose grafting is, on several accounts, preferred to budding. Still it often happens that if one was desirous of propagating choice varieties of fruit when grafting cannot be performed, as in the summer season, when grafting is generally supposed to be impracticable, then budding comes to our assistance, and enables us to secure the results and advantages of grafting with comparatively little risk.

The bud, which, in this operation, supplies the place of the scion, may be considered as an embryo branch, characterized by its own peculiar structure and qualities and individual vitality; and when detached from its parent limb and set, according to certain rules of art, in a healthy branch, is capable of continued growth and a reproduction of its species. The time for performing the operation of budding, is regulated in a great measure by the condition of the tree, and the activity of its circulation. The cherry is often budded in June, but the apple, pear and other similar trees, are generally budded in August and September. One reason why budding has so frequently failed, is, that many attempt it at improper and unsuitable seasons, and when the new wood is so far advanced in the process of lignification, as to be incapable of forming or admitting new unions. Buds, however healthy, inserted under such circumstances, cannot, of course, succeed, and disgrace is brought upon the art when none is deserved. Whenever the bark is found to separate freely from the wood, buds, properly inserted, will always unite and grow, for the cambrium, or new growth of wood, is then at that stage of formation most favorable to secure the inoculation of the bud, and consequently to secure its life.

On the subject of budding, we have had an infinite variety of rules laid down by those who profess to be experienced in the business. That

every young farmer, on commencing life, should adopt certain measures to secure a constant and liberal supply of wholsome fruit for the use and comfort of his household, is a proposition the truth of which no one will deny. Even if he restrict his efforts to the simple object of securing a domestic supply without reference to the project of marketing, the portion of his time employed therein, will be devoted to good advantage, and insure no insignificant gratification and profit in the end. But the ambition of most farmers will not be satisfied with this; they will desire to see thrifty orchards surrounding their homesteads, or crowning the summits of their gently swelling hills, the produce of which will secure them the means of living, and supply cash for their improvements on their estates. The cultivation of plums, pears, peaches, grapes, currants, gooseberries, raspberries, cherries, strawberries, cranberries, blackberries, etc. etc., ought always to be associated with that of apples, and in most sections, would be found more profitable than any branch of farming, or simple gardening, that could be introduced. There are few sections of our widely extended country in which most, if not all of the above mentioned fruits, do not flourish luxuriantly, requiring but little care after transplanting, and producing generally an abundance of luscious and saleable fruit. We hope, ere long, to see this department of domestic industry elevated to the rank and position it so eminently deserves.

We forbear to repeat any of the different modes of budding, now, but refer the reader to the previous columns of the *Farmer*, where he will find the whole subject minutely described, as well as in most of the books on the subject of fruits.

SALE OF EARL DUCIE'S STOCK.

24TH AND 25TH OF AUGUST.

The late lamented Earl Ducie having requested his executors to dispose of his Agricultural stock, Mr. Strafford has instructions to sell by auction, without any reserve, at Tortworth Court, Gloucestershire, on Wednesday and Thursday, the 24th and 25th days of August next, the entire and far-famed herd of Short-horned Cattle belongimg to his lordship, consisting of upwards of sixty head of Bulls, Cows and Heifers, comprising the whole of the justly celebrated "Duchess" and "Oxford" tribes of Short-horns, which with the "Fourth Duke of York," were purchased at the late Mr. Bates's sale at Kirklevington, in 1850; also the "Duke of Glo'ster," and many other very promising young Bulls and Heifers bred from them, as well as others from the most celebrated herds in the kingdom; with the splendid flock of 800 South Down Sheep, bred from the renowned stock of His Grace the Duke of Richmond, Col. Kingcote, Capt. Pelham, Messrs. Ellman, Barclay, Harris, and others; since which have been used the very best Tups that could be obtained from Mr. Jonas Webb. Also, the unrivalled stock of Pigs, descended from the most distinguished breeds in the country.

The character of the above stock may be estimated from the fact, that the originals of each breed were purchased without the slightest regard as to price, and will be found to comprise some of the most valuable animals in the United Kingdom; as such, they are especially deserving the attention of breeders in every part of the world.

For the New England Farmer.

A PROLIFIC MEADOW.

MR. BROWN: — It has become so common of late, to put on record all facts tending to show the decay of the potatoe, I think it but fair, when anything to the contrary appears, it should be stated. Yesterday after the refreshing showers of the morning, in company with a friend, himself a large and successful cultivator, I went to view a field of about four acres of potatoes, grown as follows. The ground on which they are growing, is meadow land, with a soil of the average depth of three or four feet. The main brook of the meadow has recently been cleaned, so that the surplus water runs off, leaving it firm enough to cart upon. It is covered with a soil of richest quality, more like the prairies of the west than anything I know hereabouts.

The cultivation was commenced by spreading a coating of manure on the grassy surface, dropping the seed among the manure, cutting ditches and covering the potatoes with the material taken therefrom, leaving the ground in beds about five feet wide, and three rows of potatoes in a bed. In this way the potatoes started into growth, and now cover the ground with a most luxuriant coating of vines. A part of these, the earliest kinds, have come to maturity, and yield a fair crop of superior quality. An adjoining piece of ground was cultivated in the same way, the last year, and when the crop was gathered, the vines and rubbish were thrown into the ditches, and the whole surface was levelled off, and sown with grass seed, herds grass, red top and clover, and the present season has yielded hay of good quality, to the amount of three tons to the acre, with a prospect of a second cutting of half as much more. The crop of potatoes grown the last year fully paid for all the labor applied. The first purchase of the land did not exceed twenty dollars per acre. If any one can show a grass field yielding as much, procured at an expense as moderate, I should like to see it. The proprietor has more than *one hundred acres* of similar meadow, that has heretofore yielded herbage of the coarsest kind; all of which he contemplates bringing into English mowing by this process. One peculiarity about this culture, *no hoeing* is needed. The few weeds that start are easily pulled up by the roots. My impression is, if the potato crop should be continued *two years*, the ground would be left in better condition, and be likely to remain redeemed. It will be observed that no coating of gravel or other material has been carried upon this meadow — nor does any appear to be needed. I forbear to name the proprietor, as he is abundantly capable of making his own statement, when disposed to do so.

July 27, 1853. P.

REMARKS.— We have rarely received a communication in which we have been more interested, than in the above. Such an experiment, and its

intelligible announcement, will often do more good in its results, than a whole volume of learned argument. We are, therefore, particularly obliged to our observing correspondent, "P.," for enabling us to record it. The mode of culture will be certainly new to most persons, and its results must be satisfactory to all.

A NOVEL ENCOUNTER.

During an afternoon lately several of Mr. Rose's men, who were chattering together in that gentleman's stable-yard, in Pitt Street, became spectators of a singular conflict, the issue of which was the signal defeat and death of one of the combatants. A "clucking" hen was busy at work upon the dunghill, and had pursued her scratching vocation for some time, when a plump, sleek-skinned rat, about three parts grown, presented his whiskered face at a neighboring hole, and, after reconnoitering for awhile, ventured forth in search of food. Dame Tattle, viewing his presence in the light of a trespass upon her domains, ceased her scratching operations and prepared to dispute the rat's right to feed upon her territory, probably thinking the old feudal law would hold good in her case, that "He may take who has the power, and he may keep who can." With outspread wings and a look of fierce determination, her ladyship made a sudden advance upon the enemy, and, with a well-directed peck, inflicted a severe wound upon the back of the intruder. Smarting with pain, the rat turned upon the courageous dame, and forthwith a battle ensued, — peck for bite and bite for peck being the order of the day. The sharp beak of the hen fell "fast and furious upon the rat's carcase, and, finding himself coming off second best, he sprang from the midden; but the plucky dame, having got "her pecker up," pursued and again seized the fugitive, when the latter instantly turned and inflicted a savage bite upon the old lady's ornamental comb, completely severing that appendage in two. The hen, however, nothing daunted, followed up her success, and in a few minutes the luckless rat lay at her feet an "inanimate piece of clay," when chuckie returned to the dunghill, uttering, as she strode across the yard, triumphant "cackles." The spectators, who had been highly amused with the fight, then examined the remains of the rat, and, to their astonishment, it was ascertained that so furious and effectual had been the onslaught of Dame Tattle, that the varmint's legs had all been broken in the conflict. *Preston (English) Chronicle.*

For the New England Farmer.

TRIMMING PINES.

MR. BROWN:—I see of late there is an inquiry in regard to trimming pine trees, and will say that for the last few years I have been in the practice of transplanting white pine trees and trimming them. Some of those that I have trimmed, are young trees, from 5 to 10 or 12 years old; the time of trimming, from the time the buds are from 1 inch long to 6 or 8 inches, and they have generally healed over smooth without any pitch disfiguring the tree. A. F.

North Reading, July 19, 1853.

LIST OF STATE FAIRS IN 1853.

Vermont, Montpelier	September 13, 14, 15.
Kentucky, Lexington	September 13, 14, 15, 16, 17.
New York, Saratoga	September 20, 21, 22, 23.
Ohio, Dayton	September 20, 21, 22, 23.
Pennsylvania, Pittsburgh	September 27, 28, 29, 30.
Michigan, Detroit	September 28, 29, 30.
Wisconsin, Watertown	October 4, 5, 6, 7.
New Hampshire, Manchester	October 5, 6, 7.
Indiana, Lafayette	October 11, 12, 13, 14.
Illinois, Springfield	October 11, 12, 13, 14.
North Carolina, Raleigh	October 18.
Maryland, ———	October 25, 26, 27, 28.
Virginia, Richmond	November 1, 2 3.
Lower Canada	September 27 to 30.
Upper Canada	October 5 to 7.
Southern Central Ag. Society, Augusta, Geo.	Oct. 17 to 20.

AGRICULTURAL EXHIBITIONS IN MASSACHUSETTS FOR 1853.

Worcester County Society	September 21, 22.
Norfolk County Society	September 27, 28.
Essex County Society	September 28, 29.
Housatonic Society	September 28, 29.
Worcester West County Society	September 30.
Bristol County Society	October 4, 5.
Middlesex County Society	October 4, 5.
Berkshire County Society	October 5, 6.
Plymouth County Society	October 6.
Franklin County Society	October 6, 7.
Barnstable County Society	October 7.
Hampshire, Franklin and Hampden Society	Oct. 11, 12.
Hampden County Society	October 13, 14.
Hampshire County Society	October 26.

TREES.

Persons who take no particular interest in improving the streets and spare ground in their gardens, hardly realize how soon they are repaid for the slight trouble of planting, and little subsequent care of watching the growth of shade trees. The first impulse in regard to tree planting seems to be checked by the thought that it will be so long before it will grow to a size to be serviceable. From our desk we can see five horse chestnut trees that were set out only five years ago, and they now throw a delightful shade, and pay for their original cost besides, in obviating the necessity for an awning, which disfigures a street, while a tree is an appropriate and delightful ornament, as well as protector from the sun.

There has been some question about what we shall do for fuel and shipbuilding when the forests within reasonable distance of the seaboard are all destroyed. A prudent foresight would suggest that forest trees should be *planted;* there will always be spots of land enough between our large towns and villages, to have a grove of such kinds of trees raised as are best adapted to the soil. We believe every town and city that has the land to spare, along the shores of New England, or within a few miles of our railways that connect with seaport towns, could add greatly to the value of their otherwise unoccupied lands, by planting forest trees.

Many a man in Essex County could, we are satisfied, secure a fortune to his son, if not to himself, by planting forest trees on his land, which would be used to build the future ships of the Merrimac. Some land might be taken for this purpose which is almost useless for anything else. And *all* land which is not profitable for other cultivation, should be brought into wood. The pine may be raised

from the *seed* to the height of ten feet in as many years, and to a size profitable for firewood in twenty years; and of course much sooner when transplanted; and these may be planted and will flourish in the poorest soil; that which is fit for nothing else. Between here and Plum Island, with a small outlay, pine trees might be set out and pine trees line the road side, on land which now yields little or nothing, which would furnish timber for spars and many other purposes, in the course of a few years, before the present generation of ship-builders and mast-makers have given place to their natural successors.

Every one that plants a tree invests its value in a bank which never breaks, and which pays good interest; while it lives it is grateful to the eye, and if cut down will always bring more than the original cost. Let every one that can, plant a fruit tree in his garden, and a shade tree on the wayside, and another on any spare spot for future use, and we shall not in future years, have to go to Maine or Georgia for fuel and ship timber, or depend on imported and half decayed fruit, from Jersey, New York and Pennsylvania.—*Newburyport Herald.*

For the New England Farmer.

THE WEATHER.

Mr. Editor:—I see by your paper, and by others, that you have had severe drought in the last six weeks. I do not remember a season when vegetation of all kinds has continued to grow and flourish as it has here, thus far the present season. We had a fruitful rain here on Saturday, the 16th inst., from twelve till half past one o'clock. The streets and low grounds were completely flooded. Another fine shower we had on Wednesday morning, the 20th, and still another fine rain on Saturday the 23d. This morning, the 26th, another heavy shower of some two hours in length. We had in the two first weeks in the present month, ten days of as good hay weather as any farmer need ask for. So that haying and harvest have been but little retarded by rain. We think the grass crop is rather large in this section, while grain of all kinds has come in well. Corn never looked better at this season than now. But if we do not get a pinch of drought in the next six weeks here, I shall be mistaken. Yours, &c.,

L. Durant.

Derby, Ct., July 26, 1853.

For the New England Farmer.

PEAS—AN EXPERIMENT.

Mr. Editor:—Being a genuine Yankee, and possessing that spirit of inquiry which, to so great a degree, characterizes them as a people, I was induced to try the following experiment with peas.

I planted in drills 2 feet apart, on land that was in corn the year previous, manuring one-third with decomposed stable manure, one-third with chip-manure and planted the other third without any.

Those, where the chip manure was used, were one-third heavier than those were where no manure was used; and those where the stable manure was used, were twice as heavy; or in other words, where no manure was used they produced 3 parts, where the chip manure was used 4 parts, where the stable manure was used 6 parts.

Lewiston Falls, Me. S. Tenney.

For the New England Farmer.

GARGET IN COWS.

Mr. Editor:—Seeing in one of the late numbers of the *Farmer* a question about garget in cows, I have taken the first opportunity while the rain is wetting our hay, to reply to the inquiry.

Mr. Cole, in his "Diseases of Animals," page 239, says, "This disorder attacks the udders of cows, particularly young ones, after their first calving—or cows in high condition. The internal part of the udder becomes inflamed, generally in one part at first, but if not relieved, it often extends to the whole bag. It becomes tender, much swelled and feels hard and knotty. The milk coagulates, and is drawn off in thick masses, often bloody. The causes are too high feeding; allowing the cows to go dry too long; not drawing off the milk when the bag becomes full before calving; humors in the system that collect at this tender place; and taking cold." "For remedy," he says, "bleed, physic, give garget root either in their food, or use as a seton. Saltpetre, tobacco and urine, and vinegar or spirits as a wash."

I find that all farmers who feed high and depend principally on grain or green food for keeping their cows, are most troubled with this disease. It does not seem to be very dangerous to the general health of the cow but only injures or spoils the milk vessels. While visiting the farm of Hon. B. V. French, last winter, his foreman showed me a fine Devon cow that had brought three calves since her udder had been destroyed by garget, so that not a single gill of milk could be drawn away. Yet the cow enjoyed good health otherwise. A great many fine cows lose part of the bag, generally one quarter at a time. Now I should say that the garget is nothing more than long continued inflammation of the udder, caused by too great a flow of milk—for it is our best cows only, that are troubled in this way. A fat cow, or one that inclines more to take on fat than to "run to milk," seldom has this disease, except immediately after calving. A sudden change from poor to good feeding while the cow is thin of flesh, is generally the immediate cause of garget. Cows that *are* poor should be brought up to good feeding very gradually. If you feed fast you will soon be warned of danger, by fever in one or more parts of the udder, thick, and perhaps bloody milk. The first thing to do, is to take away all extra feed, draw off all the milk, and wash the fevered parts in cold spring or well water. You cannot wash or shower too much as long as the fever remains. Mr. French uses a small force pump. The amount of washing or showering, depends entirely on the severity of the case. If the cow has only just calved, it will often be brought down soft by the bunting of the calf, if you keep him a little hungry. Washing every morning and night will generally bring out the fever, but if a very bad case, wash twenty times if necessary.

We once stuffed cold wet moss all around the udder, and confined it by tying a blanket over the back and letting the cow remain in that "fix" over night.

If we will keep in *good* condition, feed regularly, milk clean, and use cold water in cases of fever, till the fever is gone, I think we need be troubled very little with cows having the garget.

Sheldonville, Mass. A. W. C.

FOOD FOR CROPS.

This is the "*grand question*" among farmers at the present day. In new countries, where the land has not been cultivated much, little is thought about giving the crop any food, in order to make it into food for ourselves, but after the fresh soil has become exhausted by constant cropping—after the "*new*" is off, or rather *out*, the farmer finds, that to make food for himself, he must give food to the plants he wishes to raise.

Well what must it be? To answer it with perfect accuracy, you should first know what the soil is made of, and then what the plant is made of—or, in other words, both should be analyzed, and the ingredients ascertained, both as to their quality and quantity. But this requires a greater knowledge of practical chemistry than the majority of the people as yet possess, and also more expense than most farmers are able to meet.

What is the next best thing to be done? Fortunately the remains of organic bodies, (by which we mean those bodies both of animal and vegetable origin, that have had life and a set of organs forming their bodies,) possess most of the ingredients required for this purpose. Although some of these ingredients which make up the mass of organic manures may not be needed in this crop, they will not be lost, and will come in play for some future one.

We are aware that there is much said about specific manure, and this article and that article is loudly recommended as the very thing, and the only thing needed. We do not undervalue them, and at the same time we would caution our readers not to overvalue them. Watch all experiments—use everything of the specific kind, such as plaster, super-phosphate of lime, sulphate of ammonia, guano, &c., &c., as you know will be beneficial, but at the same time don't give up your manure heap.

As a general rule, the remains of manure, made from the remains of organic bodies the nearest related, that is the nearest in kind and quality to those which you wish to raise, will make the best manure for them. Return to the soil again, as much of the same crop as you can, in order to make another one.

Nature gives you this advice. How is it that yonder forest has kept up for so many years such a heavy crop of wood? How is it, that for as long as you can remember, there has not only been a heavy burthen of wood on that soil, but it has been constantly increasing in growth? It is manured every fall, as sure as the fall comes, by a thick deposit of leaves, and twigs, and small branches, which the frosts, and the winds and snow break off and spread around their roots. These leaves and twigs are made up of material, in part drawn from the soil, and in part drawn from the air, and of the same kind as the rest of the wood, and so they decay and supply food for the standing, growing wood.

The vine growers in some parts of France find the clippings and prunings of their vines to be a valuable dressing for their vineyards. The cotton growers of the south begin to find that the cotton seeds and refuse cotton is a valuable dressing for cotton plants.

Many of our farmers begin to find that the stalks and husks of Indian corn, ploughed under, make a valuable manure for the corn crop, and that the prunings of the orchard, chipped up and applied to the trees from which they were taken, make a valuable dressing for the orchard.—*Maine Farmer.*

For the New England Farmer.

MOWING MACHINES.

MR. EDITOR:—It has long been the wish of farmers in New England, to see a mowing machine suitable for our small farms, and, after having tried one of the kinds now offered, I had concluded that none now made would answer. I was induced this spring, to try "Ketchum's," made by Howard, & Co., of Buffalo, and find that works well. I have tried it in thin "June grass," in clover and herdsgrass, both standing and lodged, and in coarse meadow grass, and it does the work fully equal to the best mowers. All who have seen it express this opinion. It works better on uneven ground than any one would suppose. It is strong and durable, and will, I think, be used successfully on nine-tenths of the mowing fields of New England if properly prepared.

The machine requires two good horses of even spirit, good life, weighing not less than 1000 lbs. The knives should be sharp, (though they leave no grass if dull) and the best of machinery oil should be used plentifully; the cost of oil is trifling compared to the expense of unnecessary friction. The driver should be a person of judgment, and observe the directions, which are few and simple. Hon. SAMUEL D. HUBBARD, of the city of Middleton, uses his with a yoke of oxen.

I can in three hours cut over as much surface as five men usually mow in the forenoon. And in one and one-half hours, I can rake it all, with Delano's Independent Horse Rake, which is very far superior to any kind now in use. Requiring not half the attendance in labor, does the work better, and leaves the hay much lighter than the revolving rake. It has all the advantages of all the other kinds and none of the disadvantages.

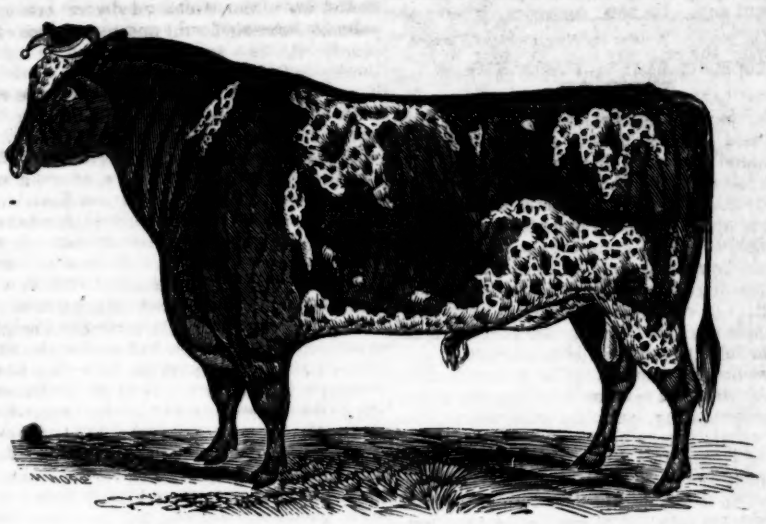
In raking hay mowed by a machine, the rake should go in the same direction of the mowing machine or directly across the snaths.

DAVID LYMAN.

Middletown, Ct., July 26, 1853.

REMARKS.—The mowing machine is an implement of great importance to the farmer, and, ere long, will be in use in most neighborhoods of progressive and intelligent cultivators. In our weekly number of July 10, 1852, and in the *Monthly Farmer* for August, 1852, we gave a figure of the mowing machine spoken of by our correspondent, and appended some remarks. We believe there is plenty of land sufficiently level in nearly every neighborhood, to justify the purchase of a mowing machine. This might be done by several persons owning it jointly, and the expense of cutting their grass materially reduced. We hope to see one in use among us soon.

☞ A pear bud inserted into a quince stock last August, by M. D. Eaton, of Barre, has grown eleven feet and seven inches.



THOROUGH BRED AYRSHIRE BULL, PRINCE ALBERT.

This engraving is a fine portrait of an Ayrshire Bull, the property of Mr. JOHN RAYNOLDS, one of the proprietors of the *Farmer*. He is three years old, of a dark brown color, becoming almost black on some parts, and beautifully dappled. The white parts are studded with small spots of mingled black and brown of varied shades. His disposition is gentle, so that he is handled and controlled with ease, while he is almost as agile as a cat.

In a "Treatise on the Dairy Breed of Cows," by Mr. AITON, one of the best writers on cattle, he describes the Ayrshire breed as follows:—

"The shapes most approved of, are, head small, but rather long and narrow at the muzzle; the eye small, but smart and lively; the horns small, clear, crooked, and their roots at considerable distance from each other; neck long and slender, tapering toward the head, with no loose skin below; shoulders thin; fore-quarters light; hind-quarters large; back straight, broad behind, the joints rather loose and open; carcass deep, and pelvis capacious, and wide over the hips, with round fleshy buttocks; tail long and small; legs small and short, with firm joints; udder capacious, broad and square, stretching forward, and neither fleshy, low hung, nor loose; the milk veins large and prominent; teats short, all pointing outward, and at considerable distance from each other; skin thin and loose; hair soft and woolly. The head, bones, horns, and all parts of least value, small; and the general figure compact and well proportioned." Mr. Rankine very properly remarks, that, "compared with other improved breeds, the thighs, or what is called the twist of the Ayrshire cow, are thin. She is, characteristically, not a fleshy animal."

In the edition of YOUATT and MARTIN on Cattle, published by SAXTON, N. Y., they state that the breed has much improved since Mr. Aiton described it, and is short in the leg, the neck a little shorter at the shoulder, but finely shaped toward the head; the horns smaller than those of the Highlander, but clear and smooth, pointing forward, turning upward, and tapering to a point. They are deep in the carcass, but not round and ample, and especially not so in the loins and haunches. Some, however, have suspected, and not without reason, that an attention to the shape and beauty, and an attempt to produce fat and sleeky cattle, which may be admired at the show, has a tendency to improve what is only their quality as grazing cattle—and that at the certainty of diminishing their value as milkers.

The excellency of a dairy cow is estimated by the quantity and quality of her milk. The quantity yielded by the Ayrshire cow, is, considering her size, very great. Five gallons daily, for two or three months after calving, may be considered as not more than an average quantity. Three gallons daily will be given for the next three months, and one gallon and a half during the succeeding four months. This would amount to more than 850 gallons; but allowing for some unproductive cows, 600 gallons per year may be the average quantity annually from each cow.

Several importations of Ayrshire cattle have been made, and enough of them, we hope, are now among our people to afford a fair trial of their qualities, both for milk and beef. There will be a tendency to over-feed, at first, which must be gaurded against, or their true qualities when kept on the common feed of the farms will not be fairly tested. Prince Albert is one of the finest bulls

we have ever seen, and may be examined at the stable of the proprietor, near the depot in Concord.

For the New England Farmer.

ANALYZING SOILS—FARMING SCIENCE, &C.

MR. EDITOR:—At the present day much is written and said about analyzing soils on the farm. Some contend that each barren field should have its soil analyzed, and then what ingredients are wanting to make it productive might be easily added in the shape of "special manures," and then, as each field could be gone over with, the whole farm would be renovated. While others say that an analysis of soil is very well in its way, and is important, yet no cultivator must expect that from a simple analysis he can go forward and make his barren fields at once highly productive by adding a few mineral manures. This latter doctrine looks much the most reasonable of the two to any candid, well-meaning, practical cultivator. This bringing up a "barren field" to a high or good state of cultivation in a few weeks, in the way we have named, is but a *humbug*, and it is just as well to say so in the first place, as to *mince matters* about it hereafter. All real, substantial farm improvements are brought about gradually, from year to year; although it is not necessary, always, that a farmer should be a certain number of years in renovating a barren field. Of course much of this will depend on the means, skill and manner in which the farmer manages to bring about the improvement. But the only sure way to have these improvements thorough is for the farmer to spend a short life in practical labor on the farm, in connexion with a large share of patience, perseverance, cares, troubles and disappointments from all quarters; if he can live above all these, and still keep his eye on the main chance, improvement, all will come out right in the end.—But we have plenty of "agricultural chemists" now, who tell us that the best way to improve our worn-out lands is, to send them a specimen of soil for analysis, and they will sell us a special manure which will restore it, and that, too, at a much cheaper rate than by the ordinary way of farm improvements.

But there seems to be a clashing of ideas among the "chemical manure operators" themselves in this business. Hence we see one of these men advertises the "Superphosphate of Lime," as manufactured by him, to be a great fertilzer. Reading on still further down the column, we find another advertisement headed the "Improved Superphosphate of Lime," which is manufactured by the subscriber at so much per hundred or ton, warranted a pure and good article, &c. We have no doubt but this is a very good special manure, if well made. So is Guano, Poudrette, Gypsum, Bone-dust, and many other kinds of these manures. But when the manufacturers of these *patent manures* tell the farmers that for ordinary farming purposes they are cheaper and better than barn-yard manure, they are telling that of which there is no truth in, to say the least of it.

While on this point, we cannot do better than to give an extract from the late Prof. Norton's address before the New York State Society, in 1848.

"It will have been noticed, perhaps, that I have during all my remarks spoken of inorganic and organic manures as alike necessary; this may have seemed strange to those who have seen many of the views now entertained by others on these points. No agricultural questions have been more vexed. At first we were required by a high authority to fasten our faith upon 'ammonia' alone; if we succeeded in adding that to the soil, the work was nearly all done. Within the last two or three years, however, a wonderful change has occurred; the same high authority assures us that all our trouble in trying to catch ammonia, our precautions to prevent its escape have been, perhaps, not exactly useless, but rather unnecssary, for inorganic manures are what we want; ammonia is very good, but there is an abundance of it in the soil already. The ammonia theory was very beautiful, and was received with great eagerness, but by the time that the mineral manure theory appeared, many had tired of nothing but mineral, others were disappointed in their expectations of success through its use, and all of these turned naturally to the new light. In England, specific mineral manures were patented, which were to work wonders under all circumstances. There was a manure for wheat, one for oats, one for turnips, and so on, all infallible. It is just to say that there is no doubt but many of these extravagancies were put forth by interested parties in England, without the knowledge of the inventor. Those who have preserved the English agricultural papers during the last few years, cannot have failed to perceive how general has been the disappointment in the use of these manures, and how much harm has resulted to the cause of rational improvement."

Without doubt Prof. Norton had particular reference to the great German chemist, Liebig, who was, we believe, the great author and leader of the ammonia theory, as he is now of the special manure theory.

After reading such language, from the source whence it comes, we ask every candid, thinking man or farmer to judge for himself, and see how far it will do to trust these special manures to do up the work of farm improvement. On the point of the analysis of soils, Prof. Norton is equally explicit. In fact, we have no confidence ourselves in farmers turning chemists, or that they can learn to analyze a soil in three or four weeks' practice, nor any thing like it. The analyzing of soils is a nice business, which belongs strictly to the laboratory, to the student and practical chemist, of which a two years' course of study and practice is a short time enough for the most quick and expert scholar to make a good and thorough analysis.—And if an analysis is not a thorough and correct one, what is it good for, only to lead the farmer further in the dark. In Prof. Norton's "Elements of Scientific Agriculture and Scientific Farming," in the chapter on Chemical Analyses, he says:

"Among all of the subjects that have been presented to the consideration of farmers, since the work of agricultural improvement commenced, none has been less understood even by many of those who have pretended to be its expounders, than that of analytical chemistry as applied to agriculture. Many authors and speakers have labored to establish it as a fact that there is no difficulty in chemical investigations beyond what may be overcome by a few days of study; thus a large portion of the farming community have been led

into the belief that when proper institutions are established, they themselves, or at least their children, may in a few weeks' time do all of their own analytical work, just as well as the most accomplished chemist can do it. That such ideas as these are totally at variance with the truth, none who have ever studied the subject thoroughly can for a moment doubt. It is a perfectly safe conclusion, when any man asserts, for instance, the entire simplicity and ease of analyzing a soil, that his anayses would not be of a very accurate description. Chemistry is a science that must be studied earnestly and perseveringly, just like any other branch of knowledge which has a wide range. In order to know what is in a soil, and to determine what are the quantities of its constituents, an intimate acquaintance is necessary not only with the substances themselves in their almost endless relations and changes, but with great numbers of other substances from which they must be distinguished, and with which they are likely to be confounded by an inexperienced person. We can determine quantities by means of certain chemical processes; most of these depend on the addition of other bodies to a solution in which are dissolved those that we wish to separate. Suppose now these bodies which are thus added to be impure; obviously the whole result will be erroneous. The chemist then must know how to distinguish with certainty between pure and impure substances, and to tell what the impurities are. When he knows all of these things, there are still a great number of minor but very important points, that require attention. He must use absolutely purer water, must filter his liquids through paper that has very little ash, and must weigh every thing upon a balance that is sensitive to at least the tenth of a grain. I might go on and mention other requisites necessary to a good analysis; but those already noted are sufficient to show that greater care, skill and experience are absolutely essential in this business, that uninstructed persons must constantly be making mistakes of the most flagrant description. The worst difficulty of all is, that in many cases not having even knowledge enough to know when they have gone astray, they actually rely upon their work as trustworthy, and lead others to do so too. Results produced by such deficients are unhappily too common, and are always productive of harm wherever they go. The farmer who knows little or nothing of even chemical names, perhaps is not competent to judge of a good analysis; he cannot tell the difference between a pretender to scientific knowledge and one who really knows something that is true and valuable. He takes these erroneous analyses as his guide, and probably falls at once into some serious mistake by attempting to alter the supposed constitution of his soil. After he has been disappointed in this way a few times, he is very apt to condemn all scientific agriculture as ridiculous and of no avail for any practical purpose. There is truth in science, but it is not every one who can draw it out, and the proper course in cases of an unsatisfactory nature is to distrust the man and not the general principles."

After reading language of this kind, from such authority, who can doubt the truth of such statements? And how much more difficult it is to have a good analysis of soils made than most of us would be willing to believe. After all, practical scientific farming does not depend on how many analyses of soils a farmer can have made on his farm, though this may be all very well in its way, if they are well done. But a great deal more depends on the practical knowledge which the thinking farmer brings into his business by testing theories and trying experiments of all kinds on his farm. It is the every-day practical working farmer who should study and learn this *science* by actual heart and hand labor joined together.

Agricultural institutes, when they are founded on the right grounds, will be great helps in this business, and we think a few years hence will see them established. Still we are satisfied that if the great mass of working farmers are ever made scientific, improving farmers at all, it must be something after the plan we have named above.

Yours truly, L. DURAND.

Derby, Conn., 1853.

For the New England Farmer.

THE MARROW SQUASH.

FRIEND BROWN:—I am desirous of obtaining some information of you or some of your correspondents for removing a difficulty in the cultivation of the marrow squash. Some years I have planted them and they have done well, but for a few seasons past there has been with me almost an entire failure. This season I again planted them, and they came up well and grew finely; then came the bugs, and quite a labor I had of exterminating them; then I expected there would be nothing to check their growth, and accordingly looked forward to a plentiful harvest. But herein I was disappointed; for about the time they put forth their runners they began to turn yellow, wither and die. So at present, from quite a large patch, I have very few vines remaining, and am daily expecting the rest will go the same way.

I pulled up some of the withered vines and examined the roots closely, but found them not injured by worms, but changed to a yellowish, watery hue, which seemed the disease must originate there. If a remedy can be found that will obviate the difficulty, quite a favor will be conferred.

Yours truly, M. TENNY.

South Groton, 1853.

THE CROPS.

Mr. REED, Editor of the *Cultivator and Gazette*, Pittsfield, says:—

We spent the last week among the fields of wheat, rye, barley and oats in the south part of the county. The expression often meets us, "we never raised so large a crop before;" and we can truly say that if such crops can be produced in old Berkshire, there is but little use, or certainly but little neces sity for her sons to leave the homes of their fathers to seek a more productive land. The winter grain; both wheat and rye, is very heavy. Most of the rye and some of the wheat south of Stockbridge was cut during the last week, and some of it put in the barn. The grass crop is not as good as the grain, but it appears to us about an average with a series of years,—better by far than last year, not as good as in some other years.—Corn now looks well, very unusually well for the season. For fruit, the prospect appears rather dark, especially for the fruit of fruits,—the apple.

Very few trees give any hope of a harvest. Cherries are as abundant as we have the sun, and are very glad to see attention paid to this fruit, excellent for all the purposes of dessert and cooking. The kind most abundant are the small black and red English, but the large and choice varieties are beginning to be cultivated to a considerable extent. Of pears, plums, peaches and quinces there is a prospect of about an usual amount, but what will come to maturity no one can tell.

SHELTER.

In New England, most persons appreciate the advantages of shelter, for themselves and their animals. The importance of hiding from "the peltings of the pitiless storm," beneath tight roofs, for his family and his cattle, is better understood by the farmers among us, than by those of the West and the South. We take considerable care so to arrange our barns, as to form sunny nooks, for the comfort of our cattle in winter. Few, perhaps, give due attention to their gardens and fruit orchards, although no observing man has failed to notice the necessity of shelter for plants not of hardy growth. The Isabella grape ripens but once in four or five years in exposed positions in most of New England, while against a wall or building, with a southern exposure, and protected from cold winds, it may usually be perfected.

All running vines, such as squashes, melons, and the like, are liable to be torn in pieces and ruined, by the high winds which prevail in early summer. The leaves even of elms and maples, standing singly, are often so torn by the wind when they are young and tender, as to retain traces of the injury throughout the season.

The common mode of sheltering gardens among us, is by the erection of high close fences. This is, perhaps, more effectual for small enclosures, than any other mode. It is too expensive, where lumber is scarce, and for large tracts, in many positions, is not practicable. A fence six feet high, may sufficiently protect a garden of a half acre, but for a tract of five acres, in an exposed place, it would be entirely inadequate. Again, there are many situations, where a fence is a great deformity. Indeed, we can hardly mention a particular, in which a want of good taste is more often manifested, than in cutting up grounds immediately about our dwellings, into small enclosures.

By systematic attention to this subject, in the substitution of belts of trees, instead of board fences, especially on grounds newly laid out for garden or ornamental culture, much expense of money may be saved, and a fine effect at the same time produced.

The *Horticulturist* for August has an excellent article upon this subject, although, in some particulars, we must venture to differ with the editor. He recommends, for the purpose of protection, the European Larch, the Norway Spruce and the Hemlock Spruce, or common hemlock. To these we have no objection where they can be procured, and successfully transplanted. He also names the Lombardy Poplar and snowy Abele, which is known, also, as the Silver-leaf Poplar.

Against the use of the two latter, we must enter our protest. The Lombardy Poplar, in New England, is a thin, tender, unhealthy tree. Its introduction, about fifty years ago, was a decided misfortune to the country. It was generally planted because of its quick growth and *foreign* appearance, and after occupying the place of our own beautiful forest trees for many years, it has at length been scouted from good society, and given place to the elm and maple. The Silver-leaf Poplar is a fast growing and beautiful tree, but like the Lombardy, constantly throws up suckers from the root. A belt of either of these trees would, in a short time, without great care, appropriate a whole farm. It is not unusual to see the Abele throw up suckers, at thirty or forty feet from its trunk. A single tree of the variety often proves a serious nuisance, in well kept grounds.

For New England, generally, for shelter to large tracts, especially of plain land, the *White Pine*, we think, by far the best tree. Planted in double or triple rows, at five or six feet high as they may be, they form at once a sufficient barrier for the protection of an extent of many rods, and in a few years will modify the temperature for a great distance. The White Pine never throws up a shoot from its root. It is destroyed at once, if you desire its extermination, by cutting off at the ground. Its roots are easily severed by the plow, and so may be kept within proper bounds, and although beauty is a matter of taste, to our eye no tree exceeds in beauty "the evergreen pine."

The effect of belts of the Pine, as boundaries of neighboring owners, or divisional lines between the useful and ornamental in tastefully cultivated grounds, is like that of beautiful frames upon valuable pictures, giving a finished appearance which cannot be otherwise produced. All vegetable growth, more or less, exhausts the ground, and this consideration should always be weighed, in determining our choice between living and dead fences.

We do not advise the indiscriminate use of hedges or barriers of trees, instead of stone walls and board fences, but would suggest to our readers, that in many cases a little thought on this subject may at least add much to the beauty of their homes.

POTATO ROT.—There is no doubt but this scourge has appeared again. One of the West Cambridge market gardeners has stated to us that he had seen them dug and lying rotten in large heaps, and that a neighbor had abandoned a field where he expected to gather four to six hundred bushels.

For the New England Farmer.

INQUIRIES ABOUT SWINE, BREEDING SOWS, SHEEP, PLOWING, MANURES.

FRIEND BROWN:—Permit me through the columns of the *Farmer* to make the following inquiries.

1. What is the best breed of swine for farmers to keep; having for their object the rearing of pigs and pork for marketing?

2. What is the best way to manage a breeding sow, from the beginning to the time of weaning the pigs?

3. What breed of sheep is in your opinion the most profitable for light land?

4. As I am on a farm that has been cultivated for many years, and has never been plowed more than four or five inches deep, would it be advisable to deepen the soil at once to seven or eight inches?

5. Will it pay for farmers to buy manure, and if so what kind will pay the best?

6. What kind of a plow should I use on my land? It is very level, and smooth, and a lightish sandy loam.

Please answer the above questions and oblige

Yours truly, JOHN DIMON.

Wakefield, R. I., July, 1853.

REMARKS.—1. Some of the swine called "native," possess as good points, and are as handsome every way, as any we have ever seen. It is possible they had a touch of foreign blood, but was supposed they had not. They are prolific breeders, and make as "good pork as ever swelled in a pot," but were great feeders. A cross of such swine with the pure Suffolk, would probably give a breed that would be sufficiently hardy, quiet and easy to take on fat, moderate feeders, and yet rapid growers, and possessing all the qualities to make them as valuable as any breed now known among us. It is difficult to breed freely from the pure Suffolks, as they are a little too tender for our climate, kept as our farmers generally keep their swine.—There is no difficulty in obtaining such a cross as will give all the desirable points.

2. Breeding sows should have plenty of room, with a dry, warm bed, and access to the ground; fed moderately, a portion of the food being green and succulent, such as grass and weeds.

A week or two before the time for dropping the pigs, most of the straw and litter should be gradually withdrawn from the sleeping apartment, and the animal fed occasionally with bits of fresh meat, or scraps. After having dropt her pigs, if she refuses to let them suck, and is disposed to injure them, throw her on her side carefully, and tie her legs; having allowed the pigs all to suck, untie her and she will treat them in a manner highly "becoming to all nursing mothers." Brood sows, particularly, should be made docile by gentle treatment, and regular and sufficient feeding. Many of them are as ferocious as a hyena, and destroy many of their young in their anxiety to protect them.

3. Among us we have the native breeds of sheep, also the Leicesters, the Bakewells, the South-Downs, the Merinos, Saxon-breeds, and more recently, the French sheep, and there are others under different names. It would require a wide operation and large experience to tell you what is the best sheep for "*light* lands." Where forage is light, a less number of any stock should be kept, although it maybe that some breeds will thrive better than others on the *same* feed. A cross of the best native with the merinos, produces an animal which does well on the common country pastures, and is sufficiently hardy to endure our winter.—This cross is prolific, and with careful attention will produce a fine grade of wool, and fleeces running from three to six pounds to the clip. The sheep recently introduced into Vermont are certainly fine specimens, and we have no doubt, judging from those we have seen, and from the statements of those breeding them, are a superior breed. If we have understood the representations made correctly, they do not require any unusual pasturage or winter care.

4. Plow as deep as you please at once if you have plenty of manure: if not, go down gradually, an inch each year, until you get down sixteen inches.

5. Make all the manure you can, *on the farm*, by every consistent expedient; then if you have outlands, such as old pasture, or old fields, which you are particularly desirous to improve, and where the expense of cartage would be heavy, purchase *specific* manures, unless you can purchase near you good barn or stable manures at $2,00 to $4,00 a cord. Peruvian guano or poudrette is probably the best manure you can purchase. Superphosphate of lime has been used with good results, especially on turnip crops.

6. On the land you describe use the Double Plow. It works like a charm.

WHAT SWEET APPLES ARE BEST FOR FARMERS?

An article in the *Country Gentleman*, entitled "Apples for Milch Cows," reminds us of a subject to which we have paid some attention, but as yet not arrived at any definite conclusions. It is this: What varieties of sweet apples are the best for farmers, who have plenty of land for orcharding, to cultivate for the uses of their stock? We want those trees that are naturally hardy, quick growers, and profuse bearers, and the fruit of which shall be the sweetest that can be found; and we want a succession of the apples from September to May.

A farmer who has a suite of trees answering the above requirements, has a source of rich feed for his cattle, sheep and hogs.

We are aware that objections are often made to feeding apples to milch cows. It is said that they will cause cows to dry in their milk. By overfeeding them this will be the result. And so will overfeeding with anything else.

The writer above alluded to very truly observes, that "an unfavorable opinion of apples as food for cows has sometimes arisen from the furious over-

feeding of half starved animals which have accidently broken into orchards, and brought on disease, fever, and consequent drying of the milk by immoderate gorging—a reason for renouncing such food, would apply to the exclusion of oats from horses, and cold water from men, because they are sometimes injured by an excess of them."

We wish farmers, and apple-growers, and pomological societies, would turn their attention to this matter, and begin to investigate, and let us hear the results of their researches.

An acre of land will afford room for forty large apple trees. When fully grown, and in full bearing, they ought to yield from two hundred to four hundred bushels of apples,—say two hundred on an average of years. Could an acre of your farm be appropriated to a better and more profitable use?—*Maine Farmer.*

HOW TO DRY PEACHES.

The peach is a palatable and wholesome fruit, the crops will be abundant this year, and large quantities ought to be preserved for winter use, and for use next spring in March, April and May, a period when apples will be scarce, and before the new fruits come in. At the South they are dried as apples usually are, by being spread on boards and placed in the open air. This practice, however, is attended with many inconveniences; they require a great deal of care to protect them from the rain and dews, and are fed upon by flies, bees, wasps and hornets, beside all the domestic animals that can possibly get at them. The sun is not powerful enough to destroy the egg from which the maggot springs, so that when dried and prepared for market, they have in themselves the element of their destruction, and sometimes become worthless and disgusting.

The Shakers, who usually manage their affairs not only with prudence and economy, but with remarkable neatness, have drying houses constructed of stone and heated by a furnace. These are supplied with shallow drawers with bottoms of wire or other gauze, together with movable bars or fine lattice work on racks, where the fruit is spread out thin. All insects are thus kept out and the fruit is continually drying, no matter what the state of the atmosphere may be.

Once or twice during the process of drying, the heat should be raised to such a degree as shall destroy the vitality of the egg which is deposited in the flesh of the peach, and which we as yet have no possible means of preventing.

We do not yet, in this country, use as much *ripe* fruit, *as an article of food*, as would be conducive to economy or health. The Yankee temperament is sufficiently ardent without the stimulant which a constant meat diet affords; to those accustomed to a large amount of out-door exercise, no harm, perhaps, may arise from such a diet, but to the sedentary, it is supposed to be the source of many diseases.

But how shall we dry the peaches? Some one, in another paper, has asked the same question, and has been kind enough to answer it himself, so we clap down here what he has said for the benefit of all who desire a good supply of this delicious fruit:

"Do your readers know how to dry peaches?—Take those of the best quality, just as they are ripe enough to eat, halve them, remove the stones, and sprinkle over them, in the hollow from which the pit was taken, a little nice sugar; dry them in a brick oven after the bread, &c., is withdrawn.

"They are far better than if dried in the sun, retaining their aroma and flavor, and besides are totally free from insects. Prepared in this way, from peaches fully ripe, they need no cooking, but are simply soaked out in cold water. All the sugar they require (ranging of course with the variety) is added while drying. Peaches thus dried and prepared, are only inferior to the fresh fruit, of which they retain the flavor in a remarkable degree. If you prefer, take them not quite so ripe, and peel the fruit, but the flavor is not so good as when fully ripe, and is dissipated more in the process of drying."

☞ We copy from the April number of HOVEY's Magazine, the following sensible conversation on the *Cultivation of the Pear:*

THE CULTIVATION OF THE PEAR.

In a series of Conversational Meetings by the Members of the Massachusetts Horticultural Society.

Saturday, Feb. 5.—Mr. E. M. Richards being absent, Capt. Lovett was called to the chair.

Mr. CABOT stated, that, as the last meeting discussed the propriety of heading in pear trees when transplanted, we might hear the opinions of gentlemen present in contiuuation of the same subject.

Mr. STRONG wished to ask Mr. Hovey if he did not advise pruning in trees as a general thing; he so understood him, and would therefore class him as in favor of heading in.

Mr. HOVEY wished to explain. He did say that he advised pruning in as a general rule, because, as a general rule, trees were badly transplanted, the roots destroyed, or more or less injured. Take, say four-fifths of the trees annually sold, and they would come under this rule, and thousands of worthless trees were annually sold at auction, not worth carrying home,—thousands again were imported, and more or less injured on the voyage.—The number of really fine, healthy, well-rooted trees annually transplanted was, therefore, only a small proportion to the whole. Consequently, four-fifths of them needed doctoring, nursing, extra care and pains to make them grow, or rather live,—for a great many of them never would grow. Such being the case, he did advise pruning in, as a general thing. But when, as he had before stated, the trees were what they should be, he would not prune, on any consideration, the first year.

Mr. STRONG said he should class Mr. Hovey, then, in favor of pruning in trees, especially imported ones, or those from the forest. He understood the views of Mr. Walker to be different, and he believed them untenable. Mr. Strong dis-

cussed the subject further, and in reference to the action of sap, the functions of the leaves, and collatteral matters, which were replied to by Mr. C. M. Hovey. Mr. Strong instanced an experiment with mercury, made to test the ascending force of the sap.

Dr. WIGHT stated that he had satisfactorily tested the value of quicksilver and sulphur in destroying insects. Three years ago, he bored a hole in an apple tree, pouring in quicksilver, and plugged up the hole tight. One year after, he opened the hole, and found the quicksilver in the same state and the same quantity as when put in; it had not undergone the least change whatever. In another tree he bored a similar hole, and inserted roll brimstone. A year afterwards, it was opened with the same result as the other experiment; not the least change had taken place; the sulphur remained as when put in.

Mr. C. M. HOVEY thought this a perfectly convincing proof of the utter falsity of such experiments. Dr. Wight was a careful observer, and accurate in all his experiments; and he trusted this would forever set at rest, at least with all reasonable men, the nonsensical idea that the quicksilver or sulphur would be decomposed and absorbed by the sap, and carried throughout the tree, poisoning the insects which feed upon the leaves. It was an *annual* paragraph for the newspapers, and underwent *annual* trials by persons who believed all they read in them, especially upon agricultural or horticultural topics, and who always reported successful results. If these discussions elicited such facts as these, their importance could not be questioned.

Mr. JOS. RICHARDSON thought there was not a great difference of opinion as regards heading in trees. He believed if trees were not injured by removal, it was best not to cut them in,—if injured, then it was best to prune. It was remarked by Mr. Walker, at the last meeting, that he did not approve of scoring trees. He had had some experience on this point, himself; and so far as he had tried it, it had not been beneficial; on unhealthy trees he had no success. His course was, when a tree was stunted, to encourage the growth of suckers; the top of the old tree he did not remove; but as soon as the suckers were well grown, say in the second year, then it was cut off, and a tree vigorous and healthy was the result. This he had found was far better than to attempt to renovate by scoring the bark.

He was pleased to hear the remarks from Mr. Stickney. He could relate his experience, dearly bought. Some ten years ago, he bought seventy-two dollars' worth of trees at auction. He set them out with the greatest care; nursed them up, but they would not grow and appeared stunted; some he scored, and others he headed in the tops, and took up suckers; still they grew worse and worse, and dwindled away, until he had dug up more than half of them. Those remaining were yet only indifferent trees. He had made up his mind that if he had buried his seventy-two dollars in the soil, he would have been much better off now.

Mr. BRECK wished to add his experience in regard to poor trees. A few years ago he was passing an auction room, where a lot of Seckel pear trees were offered; wishing to get some of this variety, then rather scarce, he bought fifty dollars' worth; they looked very well in the bundle. Set them out carefully, and they scarcely made any wood; in fact, they looked so badly side of other trees the next year, that he pulled up three-quarters of them; the others remained; a few started from their bottoms and made a tolerable growth; others he continued to cut down till scarcely an original tree remained fit to sell. If he had buried his money he would have been much better off.

Mr. CABOT had but little to add to what he had already advanced. He could not wholly agree with Mr. Hovey. He understood him to say that he would not head in good trees, but in certain cases he would prune, particularly imported trees. He had received many imported trees so dry that he had to throw them into a pond of water to recover them. Yet they had grown well.

The leaves of trees act as so many forcing pumps—as lungs, throwing off water, &c. It is expedient to cut in trees, as you cannot get all the roots—and the roots will not take up as fast as the respiration of the leaves. Mr. Hovey says that when the roots are much destroyed he would head in; when not mutilated he would not cut in at all.

Adjourned one fortnight.

For the New England Farmer.

BENEFIT OF PEAT ASHES AS A MANURE.

Do farmers who possess peat or mud swamps realize the great value of the turf, peat or roots of their swamps when drained and made dry, by burning to ashes and spreading on their planting upland? It was remarked of a neighbor of mine, who moved into town last spring, he had the most luxuriant growing garden of any one in town. The question was asked how he managed to have the vegetation in his garden so green and flourishing, while most of the gardens were suffering by the drought? The reply was, that *he made his own manure.* But he made it *this spring*. It was asked *how?* In reply it was stated that he collected together the turf, peat, &c., of a peat swamp which, a few years ago, was cleared and drained, and carted it upon his upland near his garden—piled it into a heap and burnt it; and the ashes was the *manure* used; and the beneficial result is manifest to all. Will other farmers who have peat swamps, go and do likewise?

I have on the farm that I possess about 50 acres of land; over one-third is peat or mud which I have managed to drain the lower edge, and can drain the whole by cutting level ditches through it, so as to have the surface full three feet above the water in wet seasons. On the lower part which I have brought to, I have stout grass, and peat where the water stood in former days all the year round, except in dry seasons, where grew alders, love bushes, dog wood, and possessed by frogs, specked and horn turtles, water makes, &c.; and part hog lilies, and some white lilies grew. Some patches of water stood so deep that fish, eels, &c., were predominant. This year I have corn, potatoes, beans, and cabbages, which bid fair to come to good maturity. It looks so *promising* that I feel half inclined to give up my upland for pasture and only plant the lowland, as hardly one year in five but what the upland crops suffer for want of rain.

I intend to clear up, the August coming, about

two acres of swamp—get off the wood, burn the brush,—get a root puller and haul over by a yoke of oxen the branches which will pull up,—collect them together if the weather is dry, put fire to them and reduce them to ashes, for the benefit of coming crops, and also carry some upon the uplands. I take the month of August to clear up the swamp, as it is over to maple, swamp whortleberry, alders, dog wood, &c. &c., and it is said that wood, cut in August, or September, is worth 30 per cent. more than that cut in the Spring, for fuel or for timber; and by August I shall have my haying out of the way.

A part of the low land planted as above stated, I had hauled on by the wheelbarrow coarse gravel to the depth of 2¼ inches, so that by plowing, the mud or peat and gravel was completely mixed.—The largest half was not graveled at all but purely mud or peat—so if I live I expect to see which does the best. I have thrown the above items together, thinking that some farmer might have his ideas a little *stimulated* to look into the subject matter and might *write* to give me and others more information on the points mentioned above.

Yours, &c., ISAAC STEVENS.

Mansfield, 1853.

HITCHING POSTS.

☞ A short time since a pair of horses were hitched to a locust tree in one of our streets, and while standing there devoured all the bark of the tree within their reach, completely skinning it for a considerable distance above and below their heads. They died within a few hours afterwards, being killed by the bark they had eaten. Thus a double misfortune happened—the destruction of a valuable tree, and the loss of a still more valuable team.—*Rockford Forum.*

REMARKS.—That the bark of the locust is poison to man or beast is new to us; that *horses' teeth* are poisonous to the bark of trees, we have more than once had positive evidence. People often set fine trees about their buildings or gates, and leave them unprotected by stakes or boxes. By-and-by neighbor Cleverman rides up with his bay colt, full of fire and mettle, in order to pass the compliments of the evening, or perhaps, purchase the present year's crop of onions. He looks for a post to which he may tie his champing steed, but *there is none!* nothing presents itself but a beautiful rock maple, which, surprising as it may seem, has been growing by the side of the gate for four years, and has just formed a head of perfect grace and symmetry. So Bucephalus is hitched to the maple, while his owner chaffers with farmer Thoughtless about the onions. The two friends close the bargain, and then sit long in pleasant confab about the prospect of the crops, the cattle market, and the construction of the new road to B. But as there must be an end to all things, so there was to this interesting conversation; the moon had gone down, and the shadows of night covered the earth when Cleverman unhitched his impatient steed, and went clattering over the bridge.

From his chamber window, in the gray dawn of the next morning, farmer Thoughtless saw the skinned and tattered rock maple, *poisoned* by neighbor Cleverman's horse.

MORAL.—If a man sets hedges and gates and makes fine fences, he must expect to have them trampled down or torn up by his neighbor's horses, unless he accommodates them with good substantial posts, with holes, rings or hooks, to tie them to.

THE OLD GREEN LANE.

BY ELIZA COOK.

'Twas the very merry summer time
That garlands, hills and dells,
And the south wind rung a fairy chime
Upon the fox-glove bells;
The cuckoo staid on the lady-birch
To bid her last good-bye—
The lark sprung over the village church,
And whistled to the sky,
And we had come from the harvest sheaves,
A bright and tawney train,
And tracked our path with poppy leaves
Along the old green lane.

'Twas a pleasant way on a summer day,
And we were a happy set,
And we idly bent where the streamlet went
To get our fingers wet;
With the dog-rose here, and the orchis there,
And the woodbine twining through;
With the broad trees meeting everywhere,
And the grass still wet with dew.
Ah! we all forgot in that blissful spot
The names of care and pain,
As we lay on the bank by the shepherd's cot,
To rest in the old green lane.

Oh! days gone by! I can but sigh
As I think of that rich hour
When my heart in its glee but seemed to be
Another woodside flower;
For though the trees be still as fair,
And the wild bloom still as gay—
Though the south winds sends as sweet an air,
And Heaven as bright a day;
Yet the merry set are far and wide,
And we never shall meet again—
We shall never ramble side by side
Along that old green lane.

For the New England Farmer.

VALUE OF COW MANURE.

MR. EDITOR:—Can you or any of your numerous readers inform a subscriber what is considered to be the value of manure, solid and liquid, dropped by a cow, during the time they are usually stabled? Also what proportion of the value is usually reckoned as lost when the manure is thrown into the barn-yard and exposed to the weather? A.

Tarrytown, N. Y., July 24, 1853.

REMARKS.—The above inquiry is important, being one of a large class which ought to be reduced to well-defined facts. We hope some of our friends, having experience on the subject, will "let their light shine." Perhaps Mr. BROOKS, of Princeton will enlighten us. We know of no person who has experimented so systematically on this subject as he has.

For the New England Farmer.

EARTHING UP CELERY.

Mr. Editor:—In your "Calendar for August," you say; "The earthing up about the (celery) plants must be carefully attended to this month." I cannot agree with you, because experience, one of the best teachers, has taught me, that celery ought not to be earthed up at all, until within a short time, say three or four weeks before you want to dig it. Last season, (as I have before said in a communication that appeared in the *Farmer* last winter) I tried both ways, earthing up at different times through the season, commencing as soon as the plants were large enough; and also the plan of not earthing up until a short time before I wanted to dig it. The result was, as I expected, the first, was more or less rusty, some of it considerably so, while the latter, was blanched twenty-two inches high, white as snow, and perfectly free from rust; it was good enough to take the first prize of five dollars at the Massachusetts Horticultural Society's Rooms, last Fall, notwithstanding there was quite a number of competitors. I only ask those who are raising celery this year, and you in particular, Mr Editor, to try both ways, and I feel confident, that you all will agree with me, that celery should not be earthed up until within the last three or four weeks; I really don't like to disagree with so good a man as the Editor of the *Farmer*, but I could not help, after reading the "Calendar," giving my experience with this wholesome vegetable. J. F. C. H.

Newton Centre, Aug. 2nd.

Remarks.—We have never practised earthing up celery, as recommended above, but will make the experiment which our correspondent suggests with great cheerfulness. He has had ample experience, and undoubtedly understands the best modes of cultivation, although he does not fully argee with some other excellent gardeners. Cultivators of this wholesome plant, will do well to try both modes of "earthing up.'

ROUGH PAINT FOR FARMERS.

A subscriber, who subscribes himself by the very expressive name of "Economiser," requests us to publish, for the benefit of himself and others, a *durable* as well as cheap paint, to preserve the "heavier and more exposed implements, such as carts, as well as rough gates and such like fixtures."

We have often published recipes of the kind, and it is possible that we have given the following more than once to our readers. We obtained it from the archives of useful knowledge, and it is an old but useful recipe, and our friend will find it to be durable, if well prepared and well applied.

Take twelve ounces of rosin, and eight ounces of roll brimstone, each coarsely powdered, and three gallons of train oil. Heat them slowly, gradually adding four ounces of beeswax, cut in small bits. Frequently stir the liquor, which, as soon as the solid ingredients are dissolved, will be fit for use.

What remains unused will become solid on cooling, but may be remelted on subsequent occasions, if wanted.

When it is melted fit for use, add some Spanish brown, or yellow ochre, or any other coloring substance of the kind that you wish to have, first ground fine in some of the oil, then lay it on with a brush while it is hot, and thin as you can have it.

Some days after the first coat is dry, put on a second. It is said that it will preserve planks for ages, and keep the weather from driving through brick work. Common white paint may be used on the top of it, if required, for the sake of appearances.

Two coats should always be given, and in case of using it on machinery, the several parts should be painted with it, before putting them together, and a third coat put on to cover joints, and after being put together, especially if exposure to the action of moisture and weather—such as gutters, carts, tops of posts, and timber, on, or near the ground. The wood should be perfectly dry when the composition is applied.—*Maine Farmer.*

For the New England Farmer.

NOTES BY THE WAY.

August 6th, 1853.

Mr. Brown:—To aid you in portraying manners living as they rise, I will give you a brief sketch of an excursion yesterday to view the growing crops on some of the highly cultivated grounds in the vicinity of Salem. I visited the farms of Messrs. Kendall Osborn, Richard S. Rogers, Nathaniel Felton, and Aaron C. Proctor of Danvers;—and R. P. Waters and Lyman Mason of Beverly. All of these gentlemen are known as substantial and successful cultivators. My astonishment was most awakened by the extraordinary crops on the grounds of Mr. Mason—particularly *cabbages*, *squashes* and *onions*. By some magic or other, his grounds turn out products exceeding anything before witnessed. I presume this magic arises from the materials collected on the beach near by—unlimited quantities of which come in for his use. Notwithstanding many apologies made for the appearance of his grounds, by reason of a want of sufficient help to look after the weeds at the proper time, the crops are luxuriant—the onions, many of them already two inches in diameter, and so thick that a dozen or more could be counted in the space of one foot—all as vigorous and healthy as possible. The cabbages bid fair to cover the ground completely—scarcely a space occurs through the entire field, in which there will not be a perfect head. Mr. Osborn's field of onions is more extensive than Mr. Mason's, and if I do not mistake, will yield 2000 bushels on his four acres. Mr. Proctor has a field nearly as large. I had no time to examine the crops on the farms of Mr. Felton and Mr. Waters. Their barns and stock, are in the best condition. On the farm of Mr. Rogers' culture of the first order is to be seen. His field of carrots promises well. His working oxen, three pair, are equal to any others to be found. They cost as I was informed about $200 a pair. I was shown a grass field on this farm, that has yielded 4 tons of hay to the acre, the present season, caused chiefly by the dressing of liquid manure applied—the machine for distributing which, I examined. It consists of a large cask mounted on wheels, into which the liquid is pumped from a cistern, from which it flows into a distributor that scatters it like drops

of rain, as the wheels pass along. Here is a saving of fertilizing material, not often witnessed. Ten acres or more, were thus enriched on this farm. All the arrangements about the extensive farm of Mr. Rogers, are in the most complete order. On the farm of Mr. Waters, I saw a mowing machine, that had been operated a little; laid aside for want of skill in those who worked it. I have good reason to believe, that machines for mowing will ere long be in as common use, as machines for raking now are. The corn-fields, as I passed along, appeared in fine condition. There is no crop, in my judgment as a whole, superior to Indian corn. The manner in which it leaves the land for other crops, is one of its best features. I felt in duty bound, as I passed, to pay my respects to the venerable *pear tree* on the Gov. Endicott estate, without question more than 200 years old. I found it growing vigorously, some of the branches having extended more than a foot the present season—and all of them being fully laden with fruit; it is indeed a curiosity. I saw also the original stump of the Eppes' sweeting, with a tree growing out of it—but like most other apple trees, it bears no fruit this season. I have rarely passed through a section of country, with scenery more variegated and beautiful—particularly the views from the summits visited in Danvers and Beverly.

The beauty of Mr. Water's position is only surpassed by the gentlemanly hospitality of its proprietor. P.

N. B. Mr. Mason, showed me his *only cow*, an animal of native breed, now about ten years old, of large size and prime condition—whose calf, killed at the age of 3 weeks and 2 days, weighed 168 pounds—from which cow 33 lbs of milk had been taken at a single milking—and 17½ lbs of butter made in one week. Such facts need no comment. There may be breeds of cows that do better than this, but I have yet to see them.

For the New England Farmer.

SALERATUS.

Mr. Brown:—I noticed in your August No. of *New England Farmer*, an article on the use of saleratus. I had seen several articles on the same subject elsewhere. They seem to be written by *men* who are not aware that it is never used by good housekeepers, except in connexion with some acid, which *destroys* its alkaline properties.

In the country, sour milk is much used, and Cream of Tartar has of late come into use extensively. The *evil* is in using too much, i. e. more than sufficient to neutralize the acid. When this is the case, the bread will be discolored, and smell and taste of saleratus.

Bread raised with yeast is, no doubt, healthiest, best, and most economical for common use. But as this is a process requiring usually four or five hours, how shall we "hurry up those cakes," of which our *men folks* are so fond, without saleratus? Milk may be used with it, but can hardly "take its place there," as you suggest.

Meg.

Remarks.—Well, Mistress "Meg," we thank you for your pleasant article above, and are confident you are one of the wives that the scripture speaks of as "rising in the morning and looking to the ways of her household." But we shall be obliged to fall back on our "reserved rights" in this case, and get *our wife*, who uses little or no saleratus, to tell us how she manages! We will "stake her bread against the world," and invite you to call at River Cottage and test it yourself.

For the New England Farmer.

OLD FIELDS.

An unpromising subject, you will say, Mr. Editor. I grant it, but still argue that it should be discussed. Are you aware what an amount of land in Massachusetts comes under this denomination? Suffice to say it is very great. In the old county of Hampshire, are tens of thousands of acres of this character. Land originally productive, though light and sandy, which by continual draining, or perhaps more properly, skimming, has been so far reduced as to be regarded as almost worthless.

These "old fields" are, for the most part, supposed incapable of producing anything but rye, and that in very small quantities.

The common practice is to sow rye once in three years; fallow plowing in June, and again plowing and sowing early in September. No grass seed is sown, nor is it expected the ground will produce anything but weeds during the two intervening years—but seek repose in a short Van Winkle nap.

The product varies from five to nine bushels. We will allow seven to be the average, which is liberal. The expense of plowing twice, harrowing and sowing, is at least three dollars. Such land is estimated at from ten to twenty-five dollars per acre. Call the interest sixty cents for three years $1,80. Taxes and fencing, say fifty cents per acre, $1,50. Making an aggregate cost of $6,30 for the production of seven bushels of rye. One bushel of which must be deducted for seed, leaving six bushels, worth, on an average, 5s per bushel—$5, as a return for a cash outlay of six dollars and thirty cents. I allow that the straw will pay for harvesting and threshing, still the cultivator does not get pay for his labor, and would be better off without land.

This I call an impoverishing process. It impoverishes both the soil and the tiller. That the cultivator is made poorer, is shown by figures which can't lie. Experience and common sense prove that land will depreciate and be rendered less productive by this process. Let the farmer skin his horse and turn him out to pasture. He may save the hide, but a long time will elapse before he will obtain another, or any service from his horse. A process somewhat analogous is pursued by those who crop old fields with rye and nothing but that.

Agricultural products have become too valuable in New England to suffer land to remain thus unproductive. The cause of agricultural science demands that labor, expended upon the cultivation of the soil, should be remunerative.

We hear much said of the old fields in the Southern States,—tracts of land, which, by continuous cropping and bad tillage, have been rendered worthless, and turned out as part of the public goose-pasture.

We New Englanders regard this as bad hus-

bandry and bad economy. And I regard as bad economy every system of cropping which reduces the strength of the soil,—which diminishes the real value of the land. I say *system*. The removal of a specific crop may exhaust the land more than is equivalent to the manure applied for that crop, and the land not be injured in the long run. But every circle or rotation of crops should leave the land in as good heart, at least, as it finds it. Otherwise there is bad husbandry and must be ultimate failure.

Good teamsters understand that it costs less to keep a horse in good condition than otherwise.—They know also that a horse thus kept will perform more labor and endure more hardships, and that, too, far more to the satisfaction of his owner, than one which seems vacillating near the starvation point, and is permitted to eat only to live and not die. They know, too, that when a horse begins to "run down hill," 'tis hard keeping him back.

So of the soil. Newly cleared land, which will produce thirty bushels of rye to the acre, requires no more labor for tillage than the same land will require when so reduced as to produce no more than seven bushels. If there is more profit in raising the former crop than the latter, why will not farmers take the necessary step to secure it?

As in the case of the horse, the soil, when in a good condition, is easily kept so. These need only to supply from year to year the mineral ingredient of which the crop has robbed the soil. All the other ingredients necessary to form the pabulum of plants, the soil, with the combined agency of water, air and caloric, will elaborate for itself.

Here we see, Mr. Editor, the necessity of a little "book knowledge." The farmer needs to know *what* his soil contains,—in what it is deficient, of what his crop of rye has robbed it. This can be learned only by analysis. But when learned, the remedy is at hand, and can easily be applied.—And when agriculture is conducted with the same regard to economy and thrift as other departments of industry, this will be understood and practised. But to return from this digression to the old fields. They were compelled to submit to a constant drain, with no means of redress. Soon they were so far reduced as not to be capable of producing corn, and rye was thought the only crop that would pay. Consequently these fields have long been in the condition of the "poor old horse."

It is not that the soil is entirely worn out, that its productive properties have all been exhausted. There is still vegetable mould; and the pabulum of other plants, than rye, still exist in sufficient quantities. There needs but a husbanding of the resources which abound and a change of crops. It is often easier to locate disease and give it a name, than to prescribe a remedy.

I do not lay claim to superior knowledge in this matter, nor have I had much experience. I will venture, however, a few suggestions, which, if in themselves worthless, may elicit from others information upon this important topic.

I. These lands should be properly plowed. This has seldom been done. The number of farmers who plow well, is small indeed. The number is still smaller of those who plow old fields properly The belief is common, that these worn-out lands have but little soil,—that that lies near the surface and that, in "plowing," care must be used not to disturb the subsoil.

The truth lies much deeper. One cause of the deterioration of these lands is improper plowing. I believe in *making* soil. Let the subsoil, or "yellow dirt,"—be exposed to the sun and rain,—let it absorb the carbon, which is afloat in the atmosphere, and the other fertilizing elements with which it is charged, and in one year it changes its color and assumes the appearance and actually possesses the properties of vegetable mould.—Hence the importance of deep plowing. And these old fields should be disturbed with a "deep tiller," to the depth of six inches, and then seven, and so on to at last ten. Then let the subsoil plow follow.

Or, if manure is to be applied, in the first instance, in sufficient quantity to secure a crop of corn, let the subsoil be disturbed to the depth of at least twelve inches from the surface. I have said that these exhausted lands might be reclaimed by supplying the mineral substances of which they have been deprived; that the vegetable would be procured or elaborated by a natural process. Land, from which a heavy growth of pine timber has been removed, will not yield another crop of pines. But oaks, chestnuts, or some other species will spring up and grow vigorously. Let the mineral ingredients of the pine be supplied, in sufficient quantities, and I suppose a second crop of pines would grow and equal the first. So with these old fields. If you would continue the growing of rye, you must apply lime, potash and phosphorus, and other minerals which enter into the composition of rye.

2. These fields should be plowed *frequently*,—plowed, not for the purpose of cropping, but for fertilizing. If light, heat, moisture and atmospheric agencies are relied upon to work the change, the soil, and the whole soil must be *kept* in such a condition that these agencies may act freely.

3d. The products of the soil must be used to enrich it. One of the most common errors of farmers is the cropping of lands to exhaustion. The wool-grower, who in December shears his sheep, may save his wool and get a quick return. But he injures and probably destroys his flock, and in the end sustains a great loss. Not less unwise is the husbandman who carefully removes from the soil everything it produces.

When in good heart, lands will make liberal returns for all they receive. But when exhausted, when bankrupt,—when they have been "run" till their vaults are empty, they cannot be expected to make dividends. They must keep what they have got and get what they can, or become hopelessly insolvent.

If the merchant were to abstract every dollar he makes in trade, and invest it in real estate, his business would suffer. If wise, he keeps it as a working capital. Let the farmer imitate his example and he will reap a like reward. When he has succeeded in growing a light crop of clover or buckwheat or rye upon this long abused and exhausted soil instead of removing it to his barn, let him deposit it, furrow deep just where it grew to be reserved as a working capital.

Let every thing which grows from the soil be returned to it, and in a short time, "with no outlay

or expenditures, save the cost of plowing, the use of the land, and a small amount, for some mineral manures, fertility may be restored.

4. Tillage lands should always be seeded with grass, when suffered to rest.

The man, who, after driving a horse hard all day, should take his teeth out and then tie him to a rack, filled with hay, would be denominated both inhuman and unwise. Equally unwise is the cultivator, who suffers his land to rest, without the means of deriving nourishment from the great storehouse of fertilizing matters,—the atmosphere.

Where muck may be easily obtained, the same result may be secured, by a shorter process. After plowing, spread a liberal dressing of muck upon the surface and pulverize thoroughly with the harrow. Then sow clover seed, rolled in dry ashes,—ten bushels of ashes to the acre. Plow in the first crop of clover,—sow rye and the last of May following, turn in the rye, and plant corn.

Should these crude suggestions lead to examination and further elucidation of this subject, my object will have been gained. R. B. H.

STUBBLE LANDS--THE ROLLER.

Lands from which exuberant crops of hay have been taken, ordinarily produce a heavy aftermath, or as it is commonly called "*Fall feed.*" This when the sod is carefully inverted and suffered to decompose, furnishes a most excellent and salutary manure. According to some writers who have experimented accurately, an acre of well set grass land contains (after the grass has been cut for hay,) from thirty to forty tons of soluble matter "fit for the food of plants." This, by being turned under after haying, is in a condition to operate a highly salutary influence upon the soil and its subsequent crops. Science has already demonstrated that no manure which it is within the capacity of man to apply to the soil, is so efficient as that produced by the decomposition of the plants it is required to support.

In France, and other countries where the grape is one of the chief staples, the leaves and tendrils of the vine are used, and wheat of the most surprising luxuriance is produced by a compost formed of the chaff and straw of that production. When sprinkled on grass, grains of wheat have vegetated and produced sound seed, when simply covered with this "manure," and "watered with pure water." In the case of turning in stubble, the laws of chemistry act with the greatest facility, and produce, without any extraneous assistance, the accomplishment of all the important results affected by the best manure. A field that has become so far exhausted as to require manuring, harrowed and sowed with grass seed, without the impoverishing effect of an intervening crop of roots or grains, would be at once restored and made capable of the production of good and remunerating harvests for a period of several years.

This practice has already been extensively adopted among us, and with satisfactory results. It is true, that in consequence of the practice of "long cropping," some fields are so far exhausted as to be able to produce enough to repay the cost of turning down. On this subject a late writer remarks:—

"There are some hay fields, however, the vegetable matter contained in which, would be found scarcely sufficient to remunerate one for the cost of turning it in. On light, thin, and exhausted, or "worn out" lands, this is often the case. Yet even such lands, (however weakening may have been the system of cropping previously pursued,) are by no means undeserving of regard. It is bad policy to neglect land simply because it *has been neglected.* If I have a poor field, which, instead of droducing enough to pay the expense of carrying it on, annually runs me in debt, my own interest demands that I immediately set about its improvement, and that I endeavor to effect this by the adoption of some method that, without involving too heavy an outlay, will ultimately secure the desired end. Rather than permit the soil to continue longer in this expensive, exhausted, and emasculate condition, I should disburse liberally, for like bad habits in a man, the evil, instead of diminishing, will increase the longer it is indulged. By turning in, therefore, whatever they have vigor to produce, I necessarily augment the productiveness of such soils; and if the texture be of a light, calcareous description, the roller should be applied. The application of this instrument, indeed, is indispensable, in order to consolidate, and give firmness to the constituent particles which otherwise would remain too loose and porous to permit the ready decomposition of the substances turned in. This operation also facilitates, in a very important degree, the salutary influences resulting to the soil from the ameliorating agencies of frosts and rains;—a body, the atoms of which exist in a state of extreme compression, being much more efficiently operated on by these principles, than one whose constituent corpuscles exist in a state of separation, or farther apart."

"All kinds of lands," says VON THAER, in his principles of Agriculture, have a tendency to agglomerate, or become too close, either in consequence of the attraction of cohesion of their particles, or of the pressure exercised on them by the atmosphere. The more argillaceous (clayey,) a soil is, the greater is the consistence and agglomeration. But most of the plants I cultivate, are unable to penetrate so hard a soil, or to derive from it the nourishment requisite for their support. It is, therefore, necessary that the soil should be loosened by some mechanical process; and this should be done as perfectly as possible, in order that rich vegetation may be produced, and all the nutritive matters contained in the ground be placed within the reach of the roots of the plants. In order to effect this, it is necessary that the layer of vegetable earth should be pulverized till not a clod or lump be left. The fibrous roots of plants do not penetrate these clods; all they can do is to wind themselves around them, and consequently, clods of earth scarcely yield more nutriment than stones."

In selecting hay seed, great care is requisite to prevent deception. Much of the clover seed now retailed, is damaged by fermentation. Seed "got out" in a proper condition, if "packed" or stored in large masses, always undergoes a process which, if not actually fatal to the germinating principle, at least greatly diminishes its vigor. A healthy and vigorous plant can only spring from a healthy and vigorous seed.

For the New England Farmer.

MONTHLY FARMER FOR AUGUST.

For our bird's-eye view of the contents of this number, we propose to attempt an arrangement by subjects. First then, in alphabetical as well as numerical order, belongs what is said of

AUGUST.

Editorial observations on the characteristics of the month, with regrets that the merry-makings with which our ancestors celebrated the close of harvest-time, are not observed by us. Followed by hints for the month on the turnip crop, reclaiming meadows, grapes, grains, celery, budding, muck, &c.

BUTTER.

"*How* is it produced?" The writer doubts the ability of any butter-maker in the State to answer the question, and he wants some chemist to do it. Chaptal, he says, dodges it. Perhaps he did not know. Chemists don't know every thing. The $10,000 offered by the State for the "application of science" to the cause and remedy of the potato-rot, is yet in the treasury! while the insiduous disease, nothing daunted, is still doing its fatal work, mysteriously alike to the learned Professor and the unlearned Plowboy.

CULTIVATION.

"Swamps—draining." On land drained by the Editor, according to the directions of this article, three tons to the acre of herdsgrass, red-top and clover, were harvested this year, where one ton of meadow grass, skunk cabbage, hardhack and hassock grass grew two years ago!" "The Drought" does not injure thoroughly cultivated land. "Hoeing Corn," the more the better; but we are cautioned against "Hilling Plants," because nature don't. But nature does *mulch;* how far is this an argument for hilling? "Much labor on little land" recommended, and an instance of the "Effects of deep Plowing" in Maine is given.

FOREIGN CORRESPONDENCE.

"Down East," by Mr. Taylor, gives us information on raising oats, and on various other farming matters, in New Brunswick. In addition to the reply of the Editor to Mr. T.'s inquiries in relation to threshing clover seed, I will say that years ago I saw a mill for this purpose, in which the work was done by water-power. I can give no description of it, further than to say, it was a cheap, simple machine, fitted up I think in a sawmill building, and, like it, served a whole neighborhood. A shaft faced with sheet iron, punched like a grater, two or three feet wide, and perhaps twice as deep, played up and down, nearly in contact with a similar stationary grater-plate. Between these two rough surfaces the seed was rapidly and effectively "threshed," after having been first separated from the haulm or straw. We have here also a flattering notice of "Agriculture in France;" and "A Residence in China" gives us some queer things about the Celestials; but the question asked some time ago in the *Farmer*, How do the Chinese preserve the fertility of their soil? is not answered. Pity there are so few farmers among the multitude of Americans abroad.

FRUIT.

An inquiry for information on raising and improving our "Indigenous Fruits and Shrubs," has called out a very able reply; in connection with which the article on "Cross Fertilization" should be read. We have also an article on the "Effect of high Culture on Fruit Trees," a notice of a "Rare and Pleasant Book," printed in 1631; Instances and theory of "Girdled Apple Trees" living after the bark was removed for the space of five inches; a picture, description, and recommendation of "The Black Tartarean Cherry;" and in the article, "Apple trees killed by Potash," are suggestions and facts in relation to other washes.

GARDEN.

"History and Culture of the Mignonette;" Report of the "Horticultural Exhibition at Concord, Mass.;" A pleasant article on the "Use of Flowers"—their being placed in church is new to us; with Figures and description of "Pruning Shears."

GRAIN.

"Ergot in Rye"—an account of a paper on this subject, read before the French Academy of Science.

HAY.

The haying season being over, we find but little on this topic, except some remarks on "Hay Caps."

IMPLEMENTS.

A cut and description of a simple apparatus for "Raising Water by Wind;" "Pruning Shears" illustrated and described; "Cross-cut Feed Cutter," about to be made by Mr. Ferry; "The Wheel Hoe" recommended; and some hints on "Good Tools for Boys," from which I must quote one sentence:—"If you wish to discourage your boys, and drive them off to the city, to sea, to California, give them rusty hoes, broken shovels, dull scythes, &c., to work with."

INSECTS.

The various articles on this subject, in the number before us, are worth the subscription price of the *Farmer* for a year to every person who cultivates a single plant or tree, or who has a spark of curiosity for the "little folk" of the animal kingdom. On the "Palmer Worm," or "New Insect," we find communications from Professor Harris, Cambridge; H. M. Stimpson, Saxonville; R. C. Stone, Sherburne; S. G. E., Chester; J Lake, Topsfield; B. M., York Co., Me., and remarks by the editor. An article by Mrs. Darling, New Haven, Ct., and one copied from the *Maine Farmer*, charging insects with producing the black knot in plum trees, are certainly interesting if not conclusive. The ladies will thank the Editor for an infallible protection against "The Moth." The "Rose Bugs," and other insects injurious to vegetation, the writer thinks may be greatly thinned off by a union of effort for their destruction on the part of those

interested. I have sometimes thought one design of insect depredations is to teach man humility—to show him the weakness of his power, the foolishness of his wisdom, the fallibility of his science. One year, for instance, the grasshopper may be a burden—literally swarming in our fields, and filling every square foot of the soil with their eggs. But in face of your mathematical demonstrations that millions must cover the land next year, there may not be a dozen found on a ten-acre lot. "Is the mole a devourer of vegetables?" The writer says "No; he lives on earth worms." "Entomological Discovery"—to destroy the nit of the Curculio.

MANURES.

Hints on "Composting," by H. F. French; Effects of Potash as a "Special Manure for Grapes;" different kinds of "Manure for laying down Grass Lands;" inquiries about "Lime from Gas Works;" "Barn Cellars, Restorative Gases, and other Speculations," by Silas Brown.

MECHANICS.

Mr. Percival, Veterinary Surgeon of the Royal Artillery, Dublin, points out several pernicious "Practices in Shoeing Horses" that smiths often fall into, and gives many practical hints on the subject. Appended to the article on "Raising Water by Wind," are some suggestive remarks on agricultural mechanics.

PRESERVING TIMBER.

A communication of facts, showing the practical value of the process of "Kyanizing." The timber used last year in rebuilding the Lowell R. R. bridge over Charles river was, I believe, subjected to this process. John Reynolds, agent Vermont Copperas Company, gives a statement of the preservative qualities of Copperas, that may prove of great importance.

ROOTS.

A well written article on the "Culture and value of the Parsnip."

SCIENTIFIC.

This proves a troublesome "heading." Of the ninety distinct articles in this single number of the *Farmer*, there is scarcely one that is not more or less tinctured with science. Which, then, shall enjoy the distinction of *scientific?* I have placed those here which do not appropriately belong to any of our other captions. I could think of no better rule "Importance of the Leaf to the Plant," and "Circulation of Sap," treat of the growth of plants, and must prove interesting to thinking, inquisitive farmers, although the writer of the latter article says, "There are very serious difficulties attending any theory which has undertaken to provide for the circulation of fluids in vegetables." Some account of the newly-established "New York State Agricultural College," and an exhortation to the Massachusetts Board of Agriculture, as "a class of men, hopeful and courageous because they have *clear, comprehensive,* and *well defined* views of what can be beneficially done in the way of agricultural education," to abandon their "mere discussions," and proceed at once to give "life and an active practical usefulness to an agricultural College" in Massachusetts. Illustrating in a familiar manner several scientific principles, we find an article with the caption "How the water boiled away from the Potatoes."

SETTING POSTS—FRONT FENCES—ALDERS.

The inquiries of a correspondent for information on these topics, has occasioned a pretty full discussion—the views and suggestions of five or six writers being given in this number.

STATE INSTITUTIONS.

On this subject we find two short communications.

STOCK.

"Cows and Tar"—a remedy for the garget. The use of collodion recommended "to prevent Cows shedding Milk," and to cure sore teats. "Cows holding up their Milk" cured by putting a weight upon the back. Illustration of the "French Buck Matchless." What a sheep!

THE SEASON.

"Prospects of the Season," in New Hampshire, by A. G. Comings; and in Massachusetts, by the Editor.

WARTS.

Recipes for curing warts. We once dislodged a numerous company from our hand by occasionally putting a very little spirits of turpentine around the roots of the "old seeder," whose great length exposed it to so frequent rubs as to be kept sore, until it was finally extracted. The small fry, following the footsteps of their illustrious predecessor, soon disappeared.

WEEDS.

A valuable editorial on the subject; a description of a new weed in New Hampshire; and a sure method of destroying "Canada thistles" in one season.

Even the foregoing comprehensive summary leaves on hand several articles, that do not seem to belong to either of our divisions, but which have a good claim to especial notice. Among them are, "What Farmers most need;" Statistics of "Agriculture in New Hampshire;" on "Trimming Pine Trees;" "Saleratus" injurious to health; "Monthly Farmer for July;" "Communication of Ideas among Cattle;" "Fable of the Rain Drop," and articles appropriate to the Ladies' and to the Boys' Departments.

Winchester, Aug., 1853. A READER.

For the New England Farmer.

TOMATOES.

MR. EDITOR:—For several years past, I have been in the habit of trimming up my tomato vines pretty closely. After as much fruit is set as will ripen before frost, I go among them with a pair of shears, cutting off the tops and all young shoots, to prevent any more fruit being formed. In this way they grow larger, fairer, and ripen much earlier, as I think. Without this thinning out, the sun's rays can hardly reach them through the rank growth of leaves. I have recommended this plan to some of my neighbors, but as they have seen nothing of the kind "in the books," they cannot venture to cut off "such beautiful branches," though they see my tomatoes ripe one or two weeks earlier than any in the neighborhood. Now, Mr. Editor, if you think I am right, just give this a little corner in the *New England Farmer*, and my neighbors will receive it as "by authority." MEG.

MORNING.

BY H. D. WHITE.

The morn awakes! Fresh from its sleep,
Earth hails the fount of light,
And through the lone ravines retire
The sombre shades of night.
The flowers refreshed salute the day
With dewy lips and blushes gay,
While choral round'lays from the grove
Announce the reign of light and love.

Above the lake the giant pines
Stand like a phalanx grim,
Arranged around their bannered shrines
In mystic worship, dim.
The wave's low voice—the streamlet's chime,
Soft murm'ring o'er departing time,
In measure mystic, like the hymn
Breathed by adoring seraphine.

Sweet, holy scenes! Can human hearts
Behold thy glories and be sad,
When night, like gloomy doubt, departs,
And earth in Aidenn robes is clad;
When from great nature's breast there flows
Sweet inspiration for the wise,
And naught save beauty, joy and love,
Salute the gaze of mortal eyes?

Eastern Journal.

PRACTICAL BEE KEEPING.

We give below another extract from Mr. Langstroth's work on Bees:

The present condition of practical bee-keeping in this country, is known to be deplorably low.—From the great mass of agriculturists, and others favorably situated for obtaining honey, it receives not the slightest attention. Notwithstanding the large number of patent hives which have been introduced, the ravages of the bee-moth have increased, and success is becoming more and more precarious. Multitudes have abandoned the pursuit in disgust, while many of the most experienced, are fast settling down into the conviction that all the so-called "Improved Hives" are delusions, and that they must return to the simple box or hollow log, and "take up" their bees with sulphur, in the old-fashioned way.

In the present state of public opinion, it requires no little courage to venture upon the introduction of a new hive and system of management; but I feel confident that a *new era* in bee-keeping has arrived, and invite the attention of all interested to the reasons for this belief. A perusal of this Manual, will, I trust, convince them that there is a better way than any with which they have yet been acquainted. They will here find many hitherto mysterious points in the physiology of the honey-bee, clearly explained, and much valuable information never before communicated to the public.

It is now nearly fifteen years since I first turned my attention to the cultivation of bees. The state of my health having compelled me to live more and more in the open air, I have devoted a large portion of my time, of late years, to a careful investigation of their habits, and to a series of minute and thorough experiments in the construction of hives, and the best method of managing them, so as to secure the largest practical results.

Very early in my Apiarian studies, I procured an imported copy of the work of the celebrated Huber, and constructed a hive on his plan, which furnished me with favorable opportunities of verifying some of his most valuable discoveries; and I soon found that the prejudices existing against him, were entirely unfounded. Believing that his discoveries laid the foundation for a more extended and profitable system of bee-keeping, I began to experiment with hives of various construction.

The result of all these investigations fell far short of my expectations. I became, however, most throughly convinced that no hives were fit to be used, unless they furnished *uncommon protection* against *extremes* of *heat* and more especially of COLD. I accordingly discarded all thin hives made of inch stuff, and constructed my hives of *doubled* materials, enclosing a "dead air" space all around.

These hives, although more expensive in the first cost, proved to be much cheaper in the end, than those I had previously used. The bees *wintered* remarkably well in them, and swarmed *early* and with unusual regularity. My next step in advance, was, while I secured my surplus honey in the most convenient, beautiful and saleable forms, so to facilitate the entrance of the bees into the honey receptacles, as to secure the largest fruits from their labors.

Although I felt confident that my hive possessed some valuable peculiarities, I still found myself unable to remedy many of the casualties to which bee-keeping is liable. I now perceived that no hive could be made to answer my expectations unless it gave me the complete control of the combs, so that I might remove any, or all of them at pleasure. The use of the Huber hive had convinced me that with proper precautions, the combs might be removed without enraging the bees, and that these insects were capable of being domesticated or tamed, to a most surprising degree. A knowledge of these facts was absolutely necessary to the further progress of my invention, for without it, I should have regarded a hive designed to allow of the removal of the combs, as too dangerous in use, to be of any practical value. At first, I used movable slats or bars placed on rabbets in the front and back of the hive. The bees were induced to build their combs upon these bars, and in carrying them down, to fasten them to the sides of the hive. By severing the attachments to the sides, I was able, at any time, to remove the combs suspended from the bars. There was nothing *new* in the use of movable *bars;* the invention being probably, at least, a hundred years old; and I had myself used such hives on Bevan's plan, very early in the commencement of my experiments. The chief peculiarity in my hives, as now constructed, was the facility with which these bars could be removed without enraging the bees, and their combination with my new mode of obtaining the surplus honey.

With hives of this construction, I commenced experimenting on a larger scale than ever, and soon arrived at results which proved to be of the very first importance. I found myself able, if I wished it, to dispense entirely with natural swarming, and yet to multiply colonies with much greater rapidity and certainty than by the common methods. I could, in a short time, strengthen my feeble colonies, and furnish those which had lost their queen with the means of obtaining another. If I suspected that anything was the matter with a hive, I could ascertain its true condition, by making a thorough examination of every part,

and if the worms had gained a lodgment, I could quickly dispossess them. In short, I could perform all the operations, which will be explained in this treatise, and I now believed that bee-keeping could be made highly profitable, and as much a matter of certainty, as any other branch of rural economy.

I perceived, however, that one thing was yet wanting. The cutting of the combs from their attachments to the sides of the hive, in order to remove them, was attended with much loss of time to myself and to the bees, and in order to facilitate this operation, the construction of my hive was necessarily complicated. This led me to invent a method by which the combs were attached to movable frames, and suspended in the hives, so as to touch neither the top, bottom, nor sides.—By this device, I was able to remove the combs at pleasure, and if desired, I could speedily transfer them, bees and all, without any cutting, to another hive. I have experimented largely with hives of this construction, and find that they answer most admirably, all the ends proposed in their invention.

While experimenting in the summer of 1851, with some observing hives of a peculiar construction, I discovered that bees could be made to work in glass hives, exposed to the full light of day.—The notice, in a Philadelphia newspaper, of this discovery, procured me the pleasure of an acquaintance with Rev. Dr. Berg, pastor of a Dutch Reformed church in that city. From him, I first learned that a Prussian clergyman, of the name of Dzierzon, (pronounced Tseertsone,) had attracted the attention of crowned heads, by his important discoveries in the management of bees. Before he communicated the particulars of these discoveries, I explained to Dr. Berg my system of management, and showed him my hive. He expressed the greatest astonishment at the wonderful similarity in our methods of management, both of us having carried on our investigations without the slightest knowledge of each other's labors.—Our hives he found to differ in some very important respects. In the Dzierzon hive, the combs are not attached to movable frames, but to bars, so that they cannot, without cutting, be removed from the hive. In my hive, which is opened from the top, any comb may be taken out, without at all disturbing the others; whereas, in the Dzierzon hive, which is opened from one of the ends, it is often necessary to cut and remove many combs, in order to get access to a particular one; Thus, if the tenth comb from the end is to be removed, nine combs must be first cut and taken out. All this consumes a large amount of time. The German hive does not furnish the surplus honey in a form which would be found salable in our markets, or which would admit of safe transportation in the comb. Notwithstanding these disadvantages, it has achieved a great triumph in Germany, and given a new impulse to the cultivation of bees.

THE CROPS IN ENGLAND.—The *London Mercantile Gazette* of August 5th, speaking of the wheat crop, says that "it is certainly not promising in appearance; and however much it may be favored by the weather, the yield must inevitably be short. There are reports of blight from several parts of the Kingdom, and fears are entertained of a disease similar to the potato rot." The potato crop is also spoken of as in a precarious condition not only in the British Islands, but in France, Holland, Belgium and some parts of Germany likewise; and there can be little doubt that a large portion will be lost

The opinion is expressed, that under this state of affairs, coupled with the unfavorable aspect of matters at the East, breadstuffs can hardly be expected to recede in price, though at the present moment there is some languor in the market. In consequence of the spread of the potato disease corn afloat has advanced in price.

GRAPES.

This delicious fruit is raised, we are glad to see, in great plenty in and around Boston. Almost every yard, large enough to plant a vine in, is improved, and the care that is bestowed upon the vines is well repaid in the abundant yield they present for the cultivator's enjoyment. The medicinal properties of the grape are hardly well enough understood. They assist, by their diluting properties, in removing obstructions of the lungs, liver, kidneys, &c., and in all the protean forms which dyspepsia assumes, they are found highly efficacious. Dyspepsia and liver complaints have scarcely an existence in the vicinity of vineyards in the old country, except among the invalids from other parts, who resort to these localities to partake of this delightful remedy, to be cured of these maladies. It appears to bring about these important results by diluting the blood, and in this manner relieving the obstructions, and causing at the same time a greatly increased circulation in the skin. In fever they may be used always with advantage, the juice being very invigorating and nutritious. In dysentery, likewise, they are said to be very efficacious, and in grape growing countries an unlimited freedom of the vineyard, during this season, it is said, is attended with the best results. But care should be taken that the fruit is perfectly ripe and sound, or it may prove as deleterious as, in a right condition, it is beneficial. The paper from which we quote says, they give vigor and great activity to feeble and delicate constitutions, and no other fruit causes so great a change in the feelings and strength of the aged, as well as those in the youth, as the well ripened grape, when taken in large quantities. They are antiseptic, and arrest a tendency to decomposition or mortification. They cool the blood, allay irritation, and act as a diluent, and thus remove obstructions of the vital system. Indeed, it is the prince of fruits, and divine inspiration places it even higher than it is held by those who ascribe to it all these virtues. Eat the grape for pleasure and health, and you will soon, in most cases, feel that you have an increased share of both.

Col. Baptiste, who has a fine vineyard of black Spanish grapes at East Pascagoula, the vines of which are in bloom for the third time this season, intends to try the experiment of wine making. The New Orleans Delta does not doubt that in a few years the whole southern sea coast will be one extended vineyard, producing the choicest wines that are now imported from Spain and Italy — *Boston Post.*

AX MAKING.

The Ax Manufacturing Company of East Douglas turn out daily from ten to fifteen hundred axes, and from six to ten hundred broad axes, adzes, hatchets, &c., of nearly fifty different patterns. The process of manufacture is especially interesting, from the fact that most of the work is done by machinery. In the first place, the bars of iron of different sizes are placed under ponderous shears, which sever the iron with perfect ease. The patterns are then taken to the rolling mill, and after being heated are passed through rollers, which form the eye of the ax. They are then bent over by the same machine, and the heads set down. The ax then goes through the process of welding, which is done by pump hammers, after which the steel is inserted, which is also done by hammers. The finishing touch is given by hand hammers. About two hundred persons are employed in this establishment, their wages ranging from one to five dollars per day. The proprietors, Messrs. L. B. & A. Hunt, are enterprising and ingenious men, and their axes are unsurpassed by any other manufacturer. The amount of their business is about $300,000 per annum. East Douglas, we are told, is a thriving, wide-awake place, and is soon to enjoy the facilities of a branch railroad.

For the New England Farmer.

THE POTATO ROT.

Mr. Editor:—As I was passing a neighbor's farm last evening, I discovered his field of potatoes—vines of luxuriant growth—had a blighted, forbidding aspect, yellowish cast, many of the leaves shrivelled, edged with black. I soon met an intelligent farmer of the neighborhood, and inquired of him the meaning of this appearance. He said the same was the case in his fields, and many others about there, that it had come on within a few days, the cause he did not know,—nor do I. The fact is certain. What is to follow, I cannot say, whether this appearance of the vines has any connection with the tubers that are expected to be grown, time alone must determine. It will be well for all cultivators to take notice of all extraordinary appearances, and to communicate them in an intelligible form. I fear it is not indicative of any good. Yours, &c., P.

Danvers, August 1st, 1853.

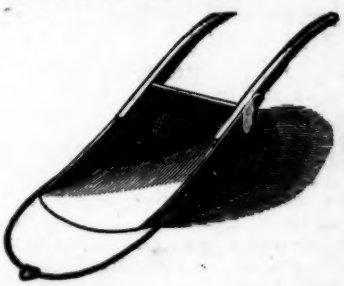
P. S. Vegetation generally was never more vigorous, in this vicinity. Corn looks first rate. Onions are suffering much from insects.

State Temperance Convention.—A call has been issued for a State convention of the friends of temperance, to be held in the Tremont Temple, Boston, Sept. 18th, to devise measures for sustaining the liquor law at the next election. As the repeal of this law is to be made a distinct question in the November elections, the friends of temperance must prepare to meet the struggle.

BUDDING AND PRUNING KNIVES.

It is pleasant if one has work to do, to have good tools to do it with. Many a sprightly lad has become disgusted with the process of budding, from being put at it with an old dull jack-knife, that probably did good service in cutting up "cold junk" in revolutionary times. This is often the case in holding the plow, mowing, &c. The beginner contracts awkward habits which require an unnecessary expenditure of labor, and which, perhaps, adhere to him and vex him through life.

In the above engraving may be seen samples of budding and pruning knives, which will enable the operator to do the work quickly and well, so that his trees will not suffer, provided he has skill and good judgment himself. The budding season is at hand, and these remarks may suggest to some, the necessity of preparation for it.



EARTH, OR ROAD SCRAPER.

This implement is an important labor-saving machine. It is usually called a "road-scraper," but it is just as valuable in many cases on the farm as in the road. An old and slovenly practice prevailed of throwing up furrow after furrow, next to the "runs" and walls, until they often became too large to be passed over with the team. The scra-

per is a capital implement to be used in levelling such places; so it is for excavations in digging cellars, or levelling in the fields. It is strong, but light; one of them ought to be in every neighborhood, and may be owned jointly, by several neighbors.

For the New England Farmer.

TRANSACTIONS OF THE AGRICULTURAL SOCIETIES.—NO. 2.

The next article is the Report of the Essex Society. This is a very interesting report, and contains many important suggestions. Although the Secretary is not remarkable for a condensed and laconic style, he has much experience in making reports, and does them up in a workman-like manner. This Society has from the first, reckoned among its members a large number of the most intelligent and efficient men in the county. Pickering, Saltonstall, Nichols and King, among those who have passed away, and Perry, Proctor, Newhall and Dodge, among those who remain, are men who do not occupy themselves in works of no value, and who do not trifle with their work. They are earnest men; men who build their own monuments; who leave behind them, in the moulding influence which their opinions and examples exert on the community in which they live, ineffaceable marks of their diligence, fidelity and power. When such men engage in the noble work of developing and extending the science and improving the practice of agriculture, not merely from love to the work itself, but from the higher motive of doing good to their neighborhood, to their State and to their country, we may reasonably expect important results from their labors. Of such results, the report before us affords abundant evidence. For the first time in its history, the Society continued its exhibition during two days, and if we may judge from the report, the result was highly satisfactory to all concerned.

We notice that a majority of the County Societies in the State have agreed to make the experiment of holding their anniversaries during two days. This will give opportunity for a more thorough examination of the stock and articles presented, and also for the discussion of important agricultural questions. The evening of the first day may be appropriated to this purpose, in such manner as the trustees may direct, and cannot fail to give increased interest to these farmers' festivals.

This county has adopted the laudable practice of awarding a premium for the best essay which may be presented, on some subject immediately connected with agriculture. A committee is appointed for this purpose. There can be no doubt that this practice has led to much intellectual effort, and has contributed to produce many of the excellent essays that have emanated from the members of that Society. The premium for 1852 was awarded to David Choate, Esq., of Essex, for an essay upon sheep culture, which, with a very interesting letter from Nathan Page, brings the whole subject before us. There were formerly many fine flocks of sheep in Essex County. Several of its towns are well suited to the raising of them. The granite ledges and rocky pastures of Cape Ann were, not many years ago, whitened with flocks of sheep. The farm of the late Samuel Riggs contained several hundred. But I think every sheep has disappeared from the Cape; even the flock that used to luxuriate upon Thatcher's Island, as a perquisite to the keeper of the Light Houses, has all gone to the "tomb of the Capulets." Sheep raising has almost ceased in Eastern Massachusetts. I suppose it is every year becoming more and more difficult for New England to compete with the wool growers of Michigan and Wisconsin, and even in the raising of mutton for the eastern markets; the increasing facilities of transportation are rendering the competition every year more difficult for New England farmers. We much fear that the accurate statements and logical reasonings of the essayist, even were they backed by the eloquence of his gifted brother, will fail to restore the culture of sheep in old Essex, except so far as a few of superior quality may be raised for the shambles, by those who have peculiar facilities or a peculiar fancy for their culture. Another circumstance we notice with approbation, and that is, the accurate, concise and definite statements accompanying all articles to which premiums were awarded. Many of these statements are models of their kind, and we commend them to the imitation of farmers in other parts of the State.

We should infer from the report that the show of poultry, vegetables and stock, did not quite come up to the standard of some former years. But we have reason to know that the standard in these respects is high in Essex, and that some articles that would take a premium in some other counties, would fail to do so in this. There are no better gardeners in Massachusetts than are to be found in Essex. But they do not seem to have made much effort to display the productions of their grounds on this occasion. Perhaps this was owing to the fact that the exhibition was held at one of the extremities of the county.

The culture of root crops is receiving much attention in Essex. There are no crops that are surer, or that yield better returns. We believe that farmers throughout the State are becoming more fully convinced of their value and importance.

The exhibition of fruits must have been very fine. Nearly a thousand dishes and baskets, filled with the finest specimens of fruit, of all the varieties raised in Essex, must have been a sight well worth a visit to Lawrence. But we confess we pity the gentlemen who composed the Committee. To decide which were best among such a great variety, where all were good, must have been as difficult as it is for some bachelors to select a wife from all the girls in the country; and what makes it still harder for the Committee is, that they were bound to decide at once, whereas the bachelors often take years in making up their minds, and some even never decide at all. We have been much interested in the remarks of Mr. Ives, the Chairman of the Fruit Committee, upon the culture of the different kinds of fruit which he specifies. They show a thorough understanding of the subject and a sound judgment, and we commend them to the attention of fruit growers throughout the country.

Only one farm was presented for a premium, a circumstance at which we are not a little surprised. It must be owing, we think, to the excessive modesty of many of the young farmers in that county. Were farmers aware of the advantages that they

might derive from the suggestions of scientific and intelligent committees, while carefully examining their farms and crops, they would take more pains to secure such visits than they now do. We have often thought that a portion of the funds of our Agricultural Societies could not be better expended than in paying the expenses of such committees. And we would respectfully suggest that it would be well to appoint several committees in each county, and make it their duty to visit and examine a certain number of farms in each town every year, with the view of advising their proprietors in the conduct of their farms, and encouraging them in their efforts after better and more scientific modes of cultivation. These visits should not be confined to good farms, where they would be most readily received, but are least needed, but should have special reference to those farms that are suffering from the want of well directed enterprise on the part of their proprietors. Many a man who is now discouraged, and has made up his mind that farming is miserable business, might be encouraged to renewed effort, and put in the way of attaining more successful results than he has before done. But we have not time to follow out in detail the advantages that would result from the appointment of such committees, especially if, after visiting several farms in a town during the day, they should meet the farmers of the town in some central place, and spend the evening in social conversation upon agricultural subjects. We have not time to allude to many topics of interest that are suggested by this report.

The address of Gen. Oliver must have been listened to with much interest. It breathes the right spirit, and is highly creditable to him as a man of taste and general information. There is a poetic vein running through it, which must have found a sympathizng chord in every breast possessing the least spark of poetic fire, or the least warmth of imagination. J. R.

Concord, Aug. 8, 1853.

MR. WEBSTER'S MANSION.

We visited the late residence of Mr. Webster, at Marshfield, last week, and enjoyed the privilege of going over the grounds and house, which have so recently been rendered sacred by the death of their illustrious proprietor. Nearly everything about the premises remains as it was before Mr. Webster's decease, although the only occupants are the servants who have charge of the mansion. The property is still in the hands of the trustees appointed by Mr. Webster, and it is yet doubtful whether it can be preserved in the family entire, according to his wishes, the demands against the estate having proved larger than was anticipated. Mr. Fletcher Webster still resides on his own place, about a mile from his late father's mansion.

We were agreeably disappointed in Marshfield. However bleak and dreary it may have been originally, taste and money have certainly done much towards making a paradise of that portion of the town which Webster selected for his home. The smooth lawns, which our August rains have clothed in "living green,"—the beautiful fields and swelling uplands, stretching away as far as the eye can see, in every direction,—the nicely trimmed English hedges, with ornamental trees interspersed, lining the carriage road to the house,—the orchards, burdened with ripening fruit,—the large and majestic shade tree in front of the house, the branches of which trail upon the ground,—the sweet little ponds, with flocks of aquatic birds dotting their surface,—the extensive barns, poultry-yards, hot-houses, &c.,—and last, though not least, the fine gardens, both floral and vegetable—all testify that Mr. Webster's farming was on as princely a scale as his more intellectual efforts.

The mansion is spacious, and is in such perfect order that it has little of the ancient look which we expected to see. It is furnished with much elegance, but everywhere evinces a taste for the simple and substantial, rather than the gorgeous and extravagant. Many fine portraits adorn the walls, among which we were pleased to see one of Monica, Mr. Webster's favorite black cook. The library is a lofty and beautiful apartment, and its shelves are still loaded with valuable books. We looked with deep interest upon the chamber in which the great statesman breathed his last. It is one of the most plainly furnished rooms in the house, but is the chief point of attraction to visitors, who linger reverently and silently around the spot where one of the noblest of human intellects underwent a translation from a mortal to an immortal state. That most impressive and memorable death-scene will be held in remembrance so long as the Christian religion endures.

The tomb of Mr. Webster is in the old Marshfield burying-ground, about one-fourth of a mile from the mansion. The lot is enclosed within an iron fence, and separated from the estate only by a carriage-road. The tomb itself has been covered with earth and sods, and presents the appearance of a green mound. It is surmounted by a plain white marble slab, which bears the simple inscription, "Daniel Webster." The day we were there, workmen were engaged in setting up the small marble monuments, concerning which Mr. Webster gave directions during his last sickness. They are four in number, and are arranged on a line in front of the tomb, all being of the same size and style. One of them bears the name and age of Mr. Webster, with the epitaph which he dictated, expressing his testimony to the truth of Christianity. The other monuments are in commemoration of his first wife, and of his deceased children and grand-children, and all bear appropriate epitaphs. Within a rod or two of this spot, is the tomb of Gov. Edward Winslow, who moved to Marshfield in 1637, and settled on land now belonging to the Webster estate; and all around are thickly scattered the graves of the Puritan fathers and mothers of the "Old Colony," many of which are un-

marked, save by rough, unlettered stones, taken from the adjoining fields or highways. An ancient grave-yard is always a place of interest; but doubly so is this venerable cemetery, in whose bosom is deposited not only the ashes of some of the fathers of New England, but also the precious dust of the foremost man of our own times.

THE PALMER WORM.

The Boston papers speak of this destructive insect as one that has made its appearance this season for the first time for many years. So far as this part of the country is concerned, the insect is by no means a new comer. A gentleman in this place informs us that he has been fighting this worm for twenty years. Many of the trees in this vicinity have this year been stripped of their foliage, but according to his general habits it is about time for the worm to disappear for the season. Those who have exercised vigilance and care in removing the insects' nests, and have freed their trees daily of these troublesome customers, have succeeded in preserving the foliage and fruit of their orchards.—*Yarmouth Register.*

REMARKS.—Mr. WILSON, a nurseryman at Windham, N. H., while we were looking at the destruction the worms had made among his trees, the other day, said the same worm had been familiar to him for twenty years, but only few in number, until the present season.

PROSPECTS OF THE CROPS.

During the first week in August, we had abundant rains. It came moderately, and without much wind, so that the crops have not been torn or beaten down. The ground now is thoroughly saturated, in all this region, as far as the roots of plants usually extend.

Corn never looked better, and is growing with great rapidity. If no untimely frosts touch it, the crop will be heavy.

Wheat, barley and oats have been materially benefited by showers about the last of July, so that the heads are better filled than was anticipated.

A north-easterly storm has prevailed now, Aug. 8, for several days, and has caught in the swath, cock, or stook, a large amount of hay and grain. Some of the meadows will be flooded, but not much loss incurred in consequence, as the low ground grass was growing vigorously when the storm commenced.

The aftergrass and the fall pastures must now be very fine, and will undoubtedly lessen the price of hay.

☞ *Cattle Market at Manchester, N. H.*—The subject is being agitated of establishing a Cattle Market at Manchester, N. H. There is no market of the kind in the State. The plan is to procure a piece of land containing ten or twelve acres and prepare it in a suitable manner to accommodate the Cattle Market, and also the State and County Fairs. It is estimated that $100,000 is now annually paid in Manchester for meats.

For the New England Farmer.

BLAST ON POTATOES.

MR. BROWN: — Within a week a great change has taken place in the appearance of potatoes; the vines of some varieties have suffered much more than others, such as the White Chenango, Sandwich Island Reds, &c. I think potatoes will rot baldy, this year. The crop with me will be cut short at least one-third, if not half, on the late potatoes. The new variety, Davis Seedling, does not appear to be so tender as some others. I am taking some notes on potatoes, that I may send you some day, if you would like them. As yet we have found but few rotten potatoes, though in passing fields I have noticed a strong smell, as though the tubers were more or less rotten; one of my neighbors told me he could smell his potato field twenty rods when the wind was right.

Present appearances are unfavorable to good crops of good potatoes. J. F. C. H.

Newton Centre, Aug. 10th.

EXTRACTS, REPLIES, &C.

D. F., *Sandwich, Mass.* Your article will be given next week. Hope to hear from you again.

J. H., *Temple, N. H.*, will accept our thanks for his interesting communication in regard to Swallows. We hope to collect facts from all parts of New England in relation to them, and always feel obliged to our friends for any information they can impart. At some future time, we shall endeavor to satisfy *the farmer*, that these birds are among the best friends that he has, and that their destruction would be followed by evils which might justly be termed, a *calamity!*

J. F. H., *Newton Centre*, will please consider his health *most excellent*, for an hundred years to come, so far as our wishes can establish it in full bumpers of his pure currant wine! Will he communicate the precise mode of making it?

M. A. P., *Watertown*, Mass., will be able to obtain the white blackberry of Mr. J. S. NEEDHAM, of Danvers, Mass. He may find an engraving of the plant in last year's volume of the *Farmer*, page 418.

"A. W. C.," *Sheldonville*, Mass., says the *cure for garget* is to wash the udder in cold water until the inflammation subsides. This will cure if anything will. The sooner it is tried after the cow is attacked the better. The way to *prevent the garget*, is to keep the cow on uniform feed, not changing suddenly from poor to good.

"S. E. HOOKER," *Poultney*, Vt., says the dry weather has essentially affected the crops in that section of country. The *palmer worm* has injured the fruit, and the "grasshopper has become a burden."

☞ The Editor of the *Hampshire and Franklin Express*, at Amherst, Mass., will please accept our thanks for the intelligent article on SWALLOWS, in his paper of the 19th of August. It will find many delighted readers.

It is a matter of surprise, that on questions which would seem of so easy solution, it is not settled yet at what particular time the swallows leave New England for the South, or whether any of them retire to the mud for a winter retreat.—Mr. WHITE, of Selborne, one of the most accurate naturalists of any age, *had no doubt* that they do hybernate. And although our obliging friend of the *Express* is equally as confident that they do *not*, we hope to be able bye-and-bye to adduce such evidence as to convince the most skeptical, that swallows do sometimes pass the winter in the margins of ponds in a state of torpidity! This subject, as well as all others of a kindred nature, is to us intensely interesting, and the doubts which hang over them all, show how partial and inconstant has been the observation of nearly all persons upon them.

DISCOVERIES AND IMPROVEMENTS.

— A new and very useful application of the Daguerreotype art has been discovered by Robert Langton, wood engraver, of Manchester, England. The discovery consists in applying photography to blocks of polished boxwood, such as are ordinarily used in his own art for wood engraving, thus rendering the blocks ready for the application of the engraver's burin. This discovery will be of invaluable service, as it will save the expense of employing draughtsmen to mark the blocks previous to engraving. Drafts of complicated machinery in perspective, and other difficult sketches, which required much time, expense and skill in the preparation of blocks for engraving, can now be produced in a moment with the light of the sun.

— A "saloon car," combining elegance, comfort and sociability to an extent not before realized on our railroads, has been placed on the Hudson River Railroad. It is thus described by the *Albany Evening Journal*:—

"The body of the car is of the length and nearly a foot wider than those in ordinary use. It has a hall on the right hand side, about three feet wide, out of which four saloons open, capable of seating eight persons each, and one for four persons. In the larger saloons is a sofa, five chairs, a centre table, and a magnificent mirror. The panneling is beautifully ornamented with landscape and other paintings; the windows and blinds are especially adapted for ventilation and for the exclusion of dust and cinders; and the whole is splendidly unique, neat and spacious. It is just what was needed for family and other parties, who, in their journeyings, desire to be alone. The fare will, of course, be more than in the ordinary cars, because it contains fewer seats."

— Gutta Percha Varnish is said to be a very effectual means of preserving writings, charts, bank bills, and pictures, as well from injury by time as from forgery or alteration. The process consists merely of running a very delicate coating of gutta percha solution over the surface of the article. It is perfectly transparent, and it is said to improve the appearance of pictures. By coating both sides of an important document, it can be kept in the best preservation. It renders it water-proof, and the plan would thus be a valuable one for ship charts.

— A correspondent of the *Railroad Record* is of opinion that curvature on railroads is the main cause of accidents, whether by collision or otherwise. Straight lines must, in the end, be adopted; and, though at first more expensive, they are in the end more economical, and are certainly safest. Curves, the writer contends, should be limited by law, and states that one degree curve, or 5,130 feet radius, offers as much resistance to a train as a grade of ten feet to the mile. Two degrees equal fifteen feet; three degrees equal twenty feet; four degrees equal twenty-five feet; five degrees equal thirty feet; six degrees equal thirty-five feet—that is, if a six-degree curve be located upon a level, it offers the same resistance to a train as would a grade of thirty-five feet to the mile, on a straight line.

— The following patents have recently been issued: John Binder, of Chelsea, Mass., for improvement in hinges for folding bedsteads. Thomas Crossley, of Roxbury, Mass., for improvement in printed carpets. Benjamin F. Delano, of Chelsea, Mass., for improved rudder-brace. John P. Schencke, of Boston, Mass., assignor to John P. Schencke and Adolphe S. Saroni, of same place, for improvement in breech-loading fire-arms.—Aury G. Coes, of Worcester, Mass., for improved screw-wrench. William Coleman and Stephen G. Coleman, of Providence, R. I., for improved ship's block. Abijah R. Tewksbury, of Boston, Mass., for improved boat or scow. Henry Stanton, of the Army of the United States of America, for improvement in discharging breech-loading fire-arms.

Advertising Department.

☞ A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square of 15 lines, one insertion.....$1,00
For each subsequent insertion.....50

☞ The above rates will be charged for all advertisements whether longer or shorter.

Middlesex Agricultural Society.

THE Committee appointed to *view Farms in Middlesex County* will enter upon their duties on Monday, the 5th day of September, 1853.

All persons who wish to enter for premiums on Farms, Orchards, and Meadows, are requested to make application to the Secretary at Concord, or either of the Committees, before the first day of September.

CHARLES BABBIDGE, Pepperell.
SAMUEL CHANDLER, Lexington. } Committee.
SIMON BROWN, Concord.

July 23, 1853. 6w

Fishkill Landing Nursery.

2½ MILES NORTH FROM THE NEWBURGH FERRY.

THE subscriber respectfully solicits the attention of FRUIT GROWERS and dealers in Fruit Trees, to his large stock for sale this fall, consisting of FORTY THOUSAND APPLE TREES, of the most approved varieties, 6 to 10 feet high, at 14 cents each, or $12 per hundred.

TWENTY THOUSAND PEAR TREES,

embracing all the varieties in general cultivation, 5 to 7 feet high, 30 cents each, on Pear stocks. On quince the trees are very thrifty, and include, in addition to the leading standard sorts, many of the new varieties of recent introduction, which promise well.

THIRTY THOUSAND CHERRY TREES,

two to three years old, of nearly all the popular kinds in cultivation :—Dwarfs, on Mahaleb stocks, of the choicest varieties, can also be supplied, 6 to 8 feet high, $18 to $30 per hundred.

TWENTY THOUSAND PLUM TREES,

of the most highly esteemed sorts, 34 cents each, $30 per hundred ; Trees thrifty, pretty, and of fine size.

A large stock of Apricot, mostly on Plum stocks, at $30 on Plum, $12,50 on Peach, per hundred.

THIRTY THOUSAND PEACH TREES,

of the most valuable standard varieties, one to two years growth on the inoculation, 10 cents each, $8 per hundred. No peach pits are planted but from a district where the "Yellows" has not yet made its appearance.

The stock of Isabella and Catawba Crape Vines is very large, two to four years old, with fine roots ; having been annually cut back, they are in fine condition for vineyard planting—$10 to $16 per hundred.

TWO THOUSAND QUINCE TREES,

mostly of the Apple variety ; Currant and Raspberry bushes, Strawberry plants, Hybrid Perpetual and other Roses, &c.&c.

FIFTY THOUSAND Deciduous and Evergreen Ornamental Trees, suitable for Lawns and Avenues, many of which are of large size and fine form—among which are 10,000 Arborvitæ, 1½ feet to 5 feet high, $12 to $30 per hundred. (Not from the State of Maine.)

EIGHTEEN THOUSAND Balsam Fir, 1½ to 5 feet high, at from $15 to 30 per hundred—together with Norway Spruce, Native Spruce, Scotch, Austrian and Weymouth Pines, Junipers, Deodar Cedar, Cedar of Lebanon, English and Irish Yew, &c.

FIVE THOUSAND Red Cedars, of suitable size for screens.

The most highly prized varieties of the Apple, Peach, Pear, Plum, Apricot, Cherry, &c., which have recently originated in this country and Europe, have been procured as early as practicable, and tested, or are in the course of being tested, on the grounds of the proprietor. The new and rare Deciduous and Evergreen Ornamental Trees are annually imported, of which fine plants can be furnished. 4,000 seeding Oaks and Elms, imported four years since, are among the Deciduous Trees, many of them very remarkable in their growth and appearance.

The past summer has been favorable, and trees of every description have made a fine growth.

The Nursery is located within 2½ miles of the Hudson River Railroad Depot, at Fishkill Landing. Steamboats run daily to New York and Albany, from Newburgh.

Trees, &c., when ordered will be taken up carefully, correctly labelled, packed in the best manner, forwarded agreeable to order, and with the least possible delay. Charges for packing made only to cover cost.

Catalogues sent in exchange for a letter stamp.

DANIEL BRINCKERHOFF.

Fishkill Landing, N. Y , Aug. 18, 1853.

Super-Phosphate of Lime,

IN bags and barrels, made by C. B. DEBURG, a warranted pure and genuine article, with full directions for use. For sale by GEO. DAVENPORT, 5 Commercial, corner of Chatham St., Boston, agent for the manufacturer,

Also, for sale, Ground Bone, Bone Dust, Burnt Bone, Guano, and Grass Seeds of reliable quality.

March 26, 1853. tf

Garden Seeds.

WE respectfully solicit the attention of purchasers of GARDEN SEEDS to our extensive stock, which we offer for sale. We have all the sorts of Vegetable Seeds that have proved worthy of cultivation; also, Grain, Grass and Flower Seeds. All the varieties are raised and selected expressly for our trade, and we do with confidence recommend them to all who desire to procure seeds that will prove true to their names.

☞ Catalogues gratis, on application.

RUGGLES, NOURSE, MASON & CO.,

Jan. 1. Over Quincy Market, Boston.

Highland Nurseries, Newburgh,

NEW YORK.

A. SAUL & CO., in calling the attention of their patrons and public in general to their very extensive stock of Fruit and Ornamental Trees, Shrubs, &c. &c., which they offer for sale the coming autumn, would remark, that owing to the past summer being one of the most favorable for the growth of trees which they have had for many years in this vicinity, their stock of *trees and plants in every department* is *large*, more *thrifty*, and in every respect *finer* than usual.

To particularize within the limits of an advertisement would be impossible ; they therefore refer *planters* and *dealers* in trees to their Catalogue, a copy of which will be sent to all *post paid* applicants, on enclosing a *Post Office stamp* for the same.

They invite *especial* attention to their stock of Standard and Dwf. Pear Trees, which are unusually fine ; also Cherry Trees, as well as Plum, Peach, Apricot and Nectarine ; also Crape Vines, Gooseberrries, Currants, Raspberries, Strawberries, &c., in every known variety.

500,000 very strong two year old Osage Orange Plants, in *three sizes*, at ten, eight, and six dollars per 1000. Together with Buckthorn Plants, Arbor Vitæ, &c.

Highland Nurseries, Newburgh, N. Y., Sept. 3, 1853.

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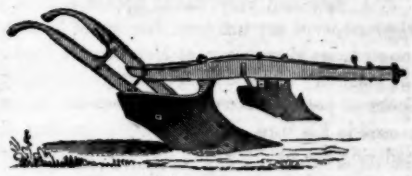
THE BOSTON AND WORCESTER

EAGLE DOUBLE PLOWS.



THE superior merits of these Plows, consist in,

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in depth of work, and relative depth of each plow, the same being regulated to any shade of nicety, with perfect facility.

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after-cultivation of the crop:

3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a finely pulverized condition, requiring little labor with the harrow or other surface-working instrument,—and indeed, in all tolerably free loams, rendering the use of these instruments, as pulverizers, quite unnecessary:

4. The remarkably light draught of the plow, in proportion to the amount of work and the thoroughness of pulverization accomplished.

Several sizes of the BOSTON & WORCESTER EAGLE DOUBLE PLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufactory at Worcester, and Warehouse Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1853.

Church and Barn Vanes.

THE Vane as used on either churches or barns combines both usefulness and ornament. The subscriber has had many years' experience in the making of Vanes, and has manufactured a large number which have given uniform satisfaction. His patterns have been procured at much pains and expense, and embrace quite a variety of those most approved and sought after. His construction of Vanes is under his own eye and of the best and most durable material, copper only being used. Those in want of Vanes for either churches or barns, are invited to make trial of those made by the subscriber. On the score of expense, strength and beauty, they will be found to be what is required. I. S. TOMPKINS,

54 (formerly 21) Union, near Hanover St., Boston.

May 21, 1853. 6m

The Farmers' Library.

JUST RECEIVED, the following assortment of Agricultural and Horticultural Books, embracing the standard works of eminent American and European writers, on the Farm, the Orchard, the Garden, &c. &c.

	PRICE.
American Farm Book, by Allen,	$1,00
Farmer's Treasure, by Faulkner and Smith,	75
Dana's Muck Manual,	1,00
Prize Essay on Manures, by Dana,	25
American Muck Book, by Browne,	1,25
Lectures on Practical Agriculture, by Johnstone,	75
Elements of Scientific Agriculture, by Norton,	50
Principles of Agriculture, by Thaer,	2,50
Practical Agriculture, by Johnstone,	75
Agriculture for Schools, by Blake,	1,00
Catechism of Agriculture and Chemistry, by Johnstone and Norton,	25
American Agriculturist, by Allen,	1,00
Liebig's Complete Work on Chemistry,	1,00
Farmer's and Emigrant's Hand Book, by Marshall,	75
Home for all, by Fowler,	50
Book of the Farm, by Stephens and Skinner,	4,00
Cottage and Farm Houses, by Downing,	2,00
Downing's Country Houses,	4,00
Rural Architecture, by Allen,	1,25
Downing's Landscape Gardening and Rural Architecture,	3,50
Downing's Cottage Residences,	2,00
Fruit Garden, by Barry,	1,25
Complete Gardener and Farmer, by Fessenden,	1,25
Bridgeman's Gardener's Assistant,	2,00
Bridgeman's Kitchen Gardener's Instructor,	50
American Fruit Culturist, by Thomas,	1,00
Gardener and Complete Florist,	25
Florist's Guide, by Bridgeman,	50
New England Fruit Book, by Ives,	
Youatt and Martin on Cattle, by Stevens,	1,25
Rose Culturist,	38
Johnson's Gardener's Dictionary, by Landreth,	1,50
Rural Economy, by Boussingault,	1,00
American Rose Culturist,	25
Bigelow's Plants of Boston,	1,25
Genera of Plants of the U. S., by Gray, 2 vols.	12,00
Gray's Botany,	2,00
Parnell's Chemistry,	1,00
New England Farmer, by Cole,	1,00
Ladies' Guide and Skilful Housewife, by Mrs. Abel,	25
Hive and Honey Bee, by Richardson,	25
Bee Keeper's Manual, by Miner,	50
Bird Fancier, by Browne, paper 25 cents,	50
Townley on Bees,	50
American Poultry Yard, by Browne,	1,00
American Poulterers' Companion, by Bement,	1,00
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Jan. 1, 1853. tf

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Boston, June 11, 1853. 4w*3

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Feb. 5. 1853. tf

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Aug. 20, 1853. 5w*

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Aug. 27, 1853. 4w

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Aug. 20, 1853. 6w